The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1164—Vol. XXVII.] LONDON, SATURDAY, DECEMBER 12, 1857. {Stamped....Sixpence, Unstamped..Fivepence.

MR. JAMES CROFTS, MINING AND SHAREBROKER, No. 1, FINCH LANE, LONDON (established 14 years), TRANSACTS every kind of BUSINESS in MINING SHARES, but, not being a DEALER, BUYS and SELLS only on orders confided to him.

Mr. Crofts not being in the habit of offering shares at fixed prices, cannot tempt the public by low quotations; and to recommend particular mines at a period of almost unexampled depression is difficult. The public are advised to watch the market, and to buy when they think the lowest point has been reached, or sell when their convenience or judgment dictates. In the midst of events tending to scatter capital, cripple trade, and check enterprise, the wisest will look forward and see that all depression has its limits, and the more severe the sooner will business be placed on a sounder basis. The mines most in request during the past week have been Wheal Edward, East Russell, Vale of Towy, Pendeen, East Alfred. Shares in copper, tin, and lead mines, which may be called relatively cheap, are also much enquired for. 1

MR. JAMES LANE, No. 29, THREADNEEDLE STREET, MINING SHARE DEALER. 2

JAMES B. BRENCHLEY, DEALER IN MINING, RAILWAY SHARES, &c. 11, ROYAL EXCHANGE, LONDON. 3

PETER WATSON (13 years' experience), MINING BROKER, STOCK and SHARE DEALER, will EXECUTE all ORDERS entrusted to his care with punctuality. Commission, 2½ per cent. on all transactions.
Bankers: Union Bank of London.
57, Threadneedle-street, London, E.C. 4

MINE SHARES FOR SALE.—

20 Alfr. Con., £13¾.	10 Par Consols, £19.	10 Wheal Margery, £6¼.
3 Botallack, £150.	5 Providence, £65.	150 Wheal Tallack, 5s.
25 Bryntail, 7s. 6d.	100 Rosewarne Con., £1⅛.	50 Wheal Zion, 12s. 6d.
20 Balnoon, £1.	50 Sortridge Cons., £1⅝.	20 South Bog, 25s.
50 Bedford Cons., 12s. 6d.	50 South Cuddra, 13s. 6d.	200 Molland, 2s.
40 Buller and Bertha, 6s.	50 St. Austell Cons., 25s.	500 Chancellorsville, 2s. 6d.
10 Carnyorth, £4½.	150 Swanpool, £3½.	4 Wheal Buller, £360.
5 Ding Dong, £15.	10 Treiyon, £8.	20 Wheal Edward, £7¼.
10 East Margaret, £2¼.	2 Wheal Basset, £130.	5 Brynford Hall, £35.
100 Great Vor, £1¼.	20 Wheal Charlotte, £2.	5 Mary Ann, £48.
40 Great Alfred, £4¼.	5 Wheal Kitty (Lel.) £15.	5 Herward United, £15.
200 Great Hewas, 15s.	4 Wheal Margaret, £45.	10 Hingston Down, £3½.
150 Kelly Bray, 30s.	10 Wheal Wrey, £5¼.	10 North Basset, £12.
25 Lady Bertha, £1.	100 West Par, 10s. 6d.	2 South Caradon. £235.
50 North Levant, £3¼.	100 West Grenville, 4s. 3d.	1 St. Ive's Consols, £160.
50 Pendeen, £2¾.	20 Wheal Ludcott, 17s. 6d.	10 Wheal Lovel, £12.

Mr. Lelean is a BUYER of 20 or 30 Okel Tor.
4, Cushion-court, Old Broad-street, E.C. Mr. LELEAN, Mine Share Dealer. 5

TO CAPITALISTS.—RELIABLE INFORMATION may be obtained on application to the undersigned, in respect of MISCELLANEOUS SECURITIES generally. BANKS, INSURANCE SHARES, LAND COMPANIES, MINES (British and Foreign), RAILWAYS, FOREIGN STOCKS, and the PUBLIC FUNDS BOUGHT and SOLD at the closest market prices, and at moderate commission. References given and required. JOHN BATTERS, Stock and Sharebroker.
26, Throgmorton-street, London, E.C. 6

MR. JOSIAH HUGO HITCHINS (Consulting Mining Engineer to the Devon Great Consols) informs his friends and capitalists generally that his PRESENT ARRANGEMENTS will enable him to AFFORD GREATER FACILITY and ADVANTAGE of CONSULTATION on the eligibility and value of MINING INVESTMENTS.

Mr. J. H. Hitchins will provide correct plans and sections for valuable reference; ensure inspections and ensure reports by the best informed, most experienced, and disinterested agents, and will always, when practicable, perform such responsible duties himself.

Mr. J. H. Hitchins will visit the mines of Devon and Cornwall, the North of England, Ireland, and Wales, to collect the most trustworthy information and opinions on their general working, state, prospects, and value.

Mr. J. H. Hitchins values his reputation as the projector, and having been for many years the chief superintendent of those wonderful mines, the Devon Great Consols, and others of great importance; and presumes that the valuable experience acquired and matured by him during his well-known successful development of them will guarantee the best advice to capitalists in their investments, both in dividend mines, and those capable of the greatest and earliest success.

Mr. J. H. Hitchins will offer his best advice and assistance to the projectors of new undertakings of good promise and probable value, and to existing companies, in effecting the best improvements in the underground and surface departments, the machinery, means, appliances, and management generally, of their mines.

Mr. J. H. Hitchins has no hesitation in saying that mines, judiciously selected, and effectively worked with sound practical judgment and economy, prove very profitable investments.—Tavistock, Dec. 11, 1857. 7

MR. F. E. BLYTH, MINING SHAREBROKER, No. 1, ST. MICHAEL'S ALLEY, CORNHILL, is commissioned to SELL SHARES in most of the DIVIDEND and PROGRESSIVE MINES. As Mr. Blyth confines himself strictly to commission business, the utmost reliance can be placed that all business entrusted to him will meet with prompt attention and regularity. 8

TO MINING COMPANIES.—Capt. JOSEPH RICHARDS OFFERS HIMSELF AS MANAGER AND PURSER OF MINES.
Mines Dialled, and Plans and Sections furnished.
The Dialling and Mapping of Mines regularly attended to.
Mines inspected either in this country or abroad, on reasonable terms.
Watervale, Bridestowe, Exeter, North Devon, Dec. 11, 1857. 9

MR. R. TREDINNICK, BROKER AND GENERAL DEALER, GRESHAM HOUSE, OLD BROAD STREET, LONDON. 10

MR. W. H. BRUMBY, STOCK AND SHAREBROKER, 1, QUIET STREET, BATH, is in a position to give the BEST ADVICE in the SELECTION and PURCHASE of DIVIDEND and PROGRESSIVE MINES. 11

MR. R. LINTHORNE, ENGLISH AND FOREIGN MINING AGENT, 3, ADAM'S COURT, OLD BROAD STREET, LONDON.
BUSINESS TRANSACTED in all ENGLISH and FOREIGN MINES, and other SECURITIES, on the usual terms of commission. Information afforded in respect to Dividend-paying and Progressive Mines. 12

JOHN GLEDHILL AND CO., MINE AGENTS, SHARE BROKERS, AND GENERAL DEALERS.
MINING RECORDS OFFICE, 12, SOUTH PARADE, LEEDS.
Mines well selected are the best investments, paying from 15 to 30 per cent. on the outlay. They have to OFFER SHARES in most of the DIVIDEND and PROGRESSIVE MINES, and are ready to give every information relative to all mining matters.—Dated Dec. 11, 1857. 13

GEORGE SPRATLEY, No. 15, OLD BROAD STREET, E.C., continues to TRANSACT BUSINESS in MINES, RAILWAY, GAS, BANK, and INSURANCE SHARES; and a carefully selected list of these securities, for speculation or investment, will be forwarded on application.
WANTED, the following SHARES, for which holders wishing to sell are requested to state lowest price nett:—

5 North Basset.	5 Alfred Consols.	2 Wheal Margaret.
100 Harriett.	50 Vale of Towy.	10 Great West of Canada.
200 Chancellorsville.	15 Trebane.	50 East Caradon.
20 Marke Valley.	3 Ding Dong.	7 West Basset.
50 East Wheal Russell.	10 Pendeen.	

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HENRY GOULD SHARP, STOCK AND SHAREDEALER, 33, POULTRY, LONDON, has the following SHARES FOR SALE, or any part, at nett prices:—

		1 Rosewarne Unit., £34.
5 Alfred Consols, £14¼.	20 East Wh. Russell, £3¼.	10 South Buller and West Penstruthal, 10s. 3d.
10 Bedford Cons., 10s. 6d.	10 East Alfred, £3¾.	
50 Bull. & Bass. Un., 15s. 3d.	2 East Basset, £22.	20 South Bog, 32s.
10 Balnoon, 21s.	15 Great Alfred, £4¼.	50 South Condurrow, 4s.
20 Boiling Well, 30s.	40 Great Hewas, 17s. 6d.	20 Sortridge Con., 33s. 6d.
1 Botallack, £197.	20 Great Wheal Vor, 26s.	25 St. Day United, £1.
25 Bryntail, 10s.	10 Holmbush, 30s. 6d.	1 South Frances, £221.
10 Bull. and Bertha, 5s. 6d.	200 King of Dart, 18s.	20 Tamar Consols, £1.
1 Brynford Hall, £51.	30 Kelly Bray, 33s.	20 Vale of Towy, 17s.
10 Carnewas, 5s. 6d.	5 Lelant Consols, £1¾.	100 West Grenville, 4s. 9d.
50 Cather. and Jane, 6s. 9d.	30 Lady Bertha, 18s. 3d.	1 Wheal Basset, £150.
200 Chancellorsville, 2s. 6d.	1 Mary Ann, £49½.	10 Wheal Edward, £6¾.
100 Cholacott Con., 3s. 6d.	150 Molland, 1s. 9d.	50 Wheal Harriett, 6s 3d.
2 Craddock Moor, £37½.	750 North Tavy, 12s.	1 Wheal Buller, £390.
200 East Hender, 10s. 6d.	28 Podn-an-drea, 14s.	30 Wheal Crebor, 7s. 6d.
5 East Margaret, £3.	3 Par Consols, £20.	25 Wheal Grenville, 24s.
20 E. Providence, 13s. 3d.	20 Pendeen, £2¾.	1 Wh. Margaret, £49¾.
50 East Rosewarne, 18s.	50 Queen of Dart, 16s. 3d.	5 Wh. Kitty (Lelant) £16.

Hy. Gould Sharp will be happy to receive any buying or selling orders. Brokers, agents, dealers, and others, residing in the mining districts of Devon, Cornwall, and elsewhere, will find a ready market, on sending positive instructions to buy or sell.
Hy. Gould Sharp offers his services to parties having spare capital to invest. He receives early information relative to all improvements in the mines, &c., consequently can give good advice as to the safest investments.
Mining Offices, 33, Poultry, London, E.C. 15
Bankers: London and Westminster Bank, Lothbury.

GEORGE MOORE, DEALER IN MINING SHARES.
1, CROWN COURT, THREADNEEDLE STREET.
George Moore will SELL the following SHARES, or any part, at quoted prices, FREE OF ANY COMMISSION:—

DIVIDEND.

5 Alfred Consols, £14¼.	5 North Basset, £12¾.	2 Wh. Kitty (Lel.), £15.
25 Drake Walls, 28s. 6d.	5 Par Consols, £19¼.	1 Wh. Margaret, £48¾.
20 Great Wh. Vor, 23s. 9d.	1 Rosewarne Uni., £26½.	1 Wheal Mary Ann, £48.
10 Hingston Down, £4¼.	25 Sortridge Con., 38s. 9d.	2 Wheal Trelawny, £25.
1 North Roskear, £25¾.	10 Trewetha, 17s. 6d.	10 Wheal Wrey, £5½.
	25 Vale of Towy, 15s. 6d.	

NON-DIVIDEND.

10 Clij. and Went., £5¼.	25 Great Hewas, 17s. 9d.	10 Porkellis United, £4½.
20 E. Gunnis Lake, 35s. 9d.	10 Gt. Wh. Alfred, £4¾.	10 Wheal Edward, £7¼.
20 East Rosewarne (Gwl.), 18s. 9d.	25 Kelly Bray, 30s. 9d.	10 Wheal Grenville, 35s.
	50 Lady Bertha, 18s.	2 Wheal Uny, £7½.
25 East Tamar, 16s. 6d.	15 North Downs, 30s. 9d.	50 Wheal Zion, 7s. 6d.
10 East Wh. Russell, £3¾.	50 N. Wrey Cons., 3s. 9d.	50 West Grenville, 5s.

In any business that George Moore is favoured with, in which he is the buyer, he will give CASH ON RECEIPT OF TRANSFER. 16

MESSRS. J. J. REYNOLDS AND SON, No. 1, ROYAL EXCHANGE BUILDINGS, LONDON, E.C., ENGLISH AND FOREIGN STOCK, RAILWAY, AND MINING SHAREBROKERS, beg to inform their friends and the public that the present time is a FAVOURABLE OPPORTUNITY for INVESTMENT in many undertakings of a substantial character, paying dividends worthy the attention of the capitalist.
Every information can be obtained at their offices, which their practical experience enables them to give, not only of mines and other properties of established value, but of those that are not. 17

MESSRS. POWELL AND COOKE, 8, HERCULES CHAMBERS, OLD BROAD STREET, LONDON.
Messrs. Powell and Cooke feel assured, from the present state and prospects of the following mines, that there will be a considerable advance, ere long, in their market value, and advise the purchase of shares at their current prices.

Vale of Towy, 15s. to 17s. 6d.	St. Day United, 17s. 6d. to £1.
Wheal Edward, £6¾ to £7¼.	Drake Walls, £1⅜ to £1½.
East Wheal Russell, £2¾ to £3¼.	Great Hewas, 15s. to 17s. 6d.
West Par, 10s. to 12s. 6d.	

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JAMES HERRON has FOR SALE the following SHARES, at the prices quoted, and FREE OF COMMISSION:—

5 Bryntail, 8s. 9d.	20 Great Hewas, 17s. 9d.	10 St. John del Rey.
10 Boiling Well, 29s. 6d.	480 Gwydyr, 6d., subject to payment of 1s. 3d. per share calls.	20 South Bog (Limited), Shropshire, £2¾.
25 Balnoon Con., 12s. 9d.		1 South Caradon, £345.
20 Catherine and Jane, 7s.	5 Hingston Down.	10 St. Aub. & Grylls, £4½.
1 Cefn Brwyno, £40¾.	20 Holmbush, 29s. 6d.	20 Sou. Condurrow, 3s. 9d.
20 Chancellorsville, 4s. 9d.	10 Kelly Bray, 32s. 9d.	20 Tamar Consols, 18s. 9d.
30 College Mines, 3s. 9d.	20 Lewis, 29s. 6d.	10 Trewetha.
20 Drake Walls, 30s. 9d.	10 Lady Bertha, 18s. 9d.	1 Trelawny, £25½.
20 Dyffryn Castell.	20 North Trelawny.	20 Vale of Towy, 19s. 6d.
5 East Buller, £3 15s.	20 North Tavy.	10 Wheal Wrey, £5¾.
20 East Tamar.	4 North Basset, £12¾.	1 Wheal Margaret.
20 East Providence.	20 North Downs, 37s. 6d., call included.	1 Wh. Mary Ann, £47¾.
10 East Trefusis, £4¼.		5 Wh. Edward, £7 3s. 9d.
6 East Wh. Rose, £6¾.	20 Pem. & E. Crin., 12s. 9d.	5 West Basset, £24½.
4 Forest.	10 Podn-an-drea, 16s. 9d.	10 Wheal Hender, 17s. 9d.
20 Gawton Unit., 13s. 9d.	10 Pendeen Con., 57s. 6d.	15 West Grenville, 5s. 6d.
5 Great Alfred, £4¾.	1 Rosewarne, £21½.	
10 Grenville, 35s. 6d.		

Mr. Herron strongly recommends the public taking advantage of the present depression to purchase in well selected mines, which cannot fail in a short time to be highly remunerative; and to illustrate this view, he selects, amongst many, Drake Walls, which never looked better than at present, and yet the market value is less by £22,000 than it was a few months back, the depression entirely arising from the fall in tin, together with the stringency of the money market, both causes being of a temporary nature only.
Mr. Herron considers the following mines well worth attention:—Vale of Towy, Trelawny, Wheal Margaret, Drake Walls, South Caradon, West Caradon, Grambler and St. Aubyn, West Basset, Kelly Bray, North Downt, Old Tolgus United, St. Aubyn and Grylls, and Stray Park.
2, Adam's-court, Old Broad-street, London, Dec. 11, 1857. 19

MESSRS. VIVIAN AND REYNOLDS, MINE AGENTS, 68, OLD BROAD STREET, LONDON, E.C.
Messrs. Vivian and Reynolds are enabled, through the long experience of Mr. W. C. Vivian as an underground agent and manager of mines in Cornwall, and in various foreign countries, to afford information on most important mining districts; and to inspect and report on mines. They are also enabled, by the several years' acquaintance of Mr. J. J. Reynolds, jun., with the transaction of the London share market, to obtain every advantage for those who may want either to buy or sell mining or any other description of stock.
Messrs. Vivian and Reynolds have daily information from the principal seats of mining, which is at the service of those who may honour them with their confidence.
The value of mining stock has been depreciated in value, in common with almost every other description of property, by the disordered state of the money market; those persons, therefore, who are in a position to purchase at present prices have more than ordinary chances in their favour of profiting by a rise in market value. It is generally supposed that the worst of the financial pressure has been passed, and the downward tendency in the prices of copper and tin has been arrested, so that there is every probability that the value of mining shares will soon again rally.
Messrs. Vivian and Reynolds are, therefore, of opinion that the present is a favourable opportunity for purchasing shares in mines that are conducted on sound business principles, and situated in good localities, and they recommend the following:

North Wheal Crofty.	West Grenville.
North Roskear. North Frances.	South Condurrow.
Camborne Vean.	New Wheal Vor.

20

CAPT. THOMAS DUNN, of TAVISTOCK, undertakes to INSPECT, REPORT, and SURVEY any MINES or MINERAL PROPERTY in ENGLAND, IRELAND, SCOTLAND, or WALES. No objection to take the management of any mine or mines in the neighbourhood of Tavistock. 21

CAPTAIN JAMES WHITE, of HELSTON, UNDERTAKES to INSPECT and FURNISH BONA FIDE REPORTS on MINES and MINERAL PROPERTY in CORNWALL. 22

MR. PALMER, NORTH DERBYSHIRE MINERAL RECORD OFFICE, MARKET HALL BUILDINGS, CHESTERFIELD.
DEALER IN ALL DESCRIPTIONS OF MINING SHARES AND STOCKS.
Several Derbyshire mines now offer great advantages to investors. 23

MR. H. HUXHAM, COLLIERY VIEWER AND MINING ENGINEER, having resigned the management of Cwmseerbren Colliery, is NOW OPEN to PROFESSIONAL ENGAGEMENTS; and begs to assure those who may favour him with their commands that all business entrusted to his charge shall receive prompt attention, and be executed with the utmost fidelity and care. References and testimonials of the highest character can be produced. Terms moderate.
AN IN-DOOR ARTICLED PUPIL WANTED. He would have first-rate opportunities of attaining a thorough knowledge of practical and theoretical mining engineering, in all its branches.—Pont-y-pridd. 24

INVESTMENT.—Messrs. FULLER and CO., 51, THREADNEEDLE STREET, LONDON, continue to TRANSACT BUSINESS in BANKING, MINING, RAILWAY, and OTHER SECURITIES, many of which will safely pay from 15 to 25 per cent. Those of a progressive character frequently rising above 100 per cent.
Since calling public attention to several mines, a rise has taken place of the following:—Craddock Moor, from £35 to £45, equal to £10,550; Calstock Consols, £3¼ to £6¼, or £12,288; East Russell, from 10s. to £2, or £6000; Wheal Edward, £4 to £9, being an increase of £20,480; Swanpool, £1 to £4, or £5400: total increase of value in four months, £54,718.
The following shares present equally as good prospects of success, and worth immediate attention:—

Dale (Limited).	Lady Bertha.	Peter Tavy Consols.
Great Wheal Busy.	Lady Elisa.	South Carn Brea.
Drake Walls.	South Lady Bertha.	West Wheal Edward.
Tokenbury Consols.	South Bog (Limited).	Whitehurch Down.

WANTED.—Alfred Consols, Botallack, Dolcoath, Hingston Down, North Roskear, South Caradon, Wheal Margery, Edward, Ludcott, Tehidy. 25

MESSRS. A. J. HUTCHINGS AND CO.'S PATENT IMPROVED WIRE ROPE.
SOLE MAKERS TO THE
LORDS OF THE ADMIRALTY, THE FRENCH AND TURKISH GOVERNMENTS, And the principal Colliery Proprietors throughout the kingdom.
MANUFACTORY, MILL WALL, POPLAR, LONDON.
ROUND and FLAT ROPES of every description, suitable for mining operations or other purposes, GALVANISED or UNGALVANISED, MANUFACTURED upon the newest and most improved machinery, ensuring greater pliability, durability, and strength; and is admitted by the principal coal proprietors to be far superior to any other kind of wire rope. The superiority of these ropes over hempen ones, in point of strength, lightness, durability, and cost, is admitted by all who have tried them.
GUIDE ROPES, SIGNAL CORD, LIGHTNING CONDUCTORS, &c. 26

MR. T. P. THOMAS, MINING AUCTIONEER, 2, CROWN COURT, THREADNEEDLE STREET, LONDON. 27

MR. JOHN R. PIKE, MINING AND SHAREBROKER, 3, PINNER'S COURT, OLD BROAD STREET, LONDON. 28

WILLIAM MARLBOROUGH, MINING AGENT, (For many years with Mr. T. P. Thomas), 57, OLD BROAD STREET, LONDON. 29

MR. WILLIAM MOORE, STOCK AND SHAREDEALER, 11, HERCULES CHAMBERS, OLD BROAD STREET.
N.B. Business transacted in every description of stock and shares. 30

MR. E. GOMPERS, MINING SHAREDEALER, 3, CROWN COURT, THREADNEEDLE STREET, LONDON. 31

JAMES H. COCK, MINE SHAREBROKER, GENERAL COMMISSION AGENT, AND ACCOUNTANT, REDRUTH, CORNWALL.
Orders for the PURCHASE and SALE of MINE SHARES, MINING MATERIALS, &c., promptly attended to. 32

MR. FRANCIS R. BILL, CONTRACTOR, AND GENERAL ACCOUNTANT AND AUDITOR.
32, BUCKLERSBURY, LONDON, E.C.
CONTRACTOR for the SUPPLY of RAILWAY MATERIALS of every description. Estimates prepared. Agencies undertaken. ACCOUNTANTSHIP BUSINESS of all kinds performed under contract, whereby a considerable saving on the usual cost may be effected. 33

WILLIAM BIRDSEY is a BUYER of PENDEEN SHARES, at the market price, in any number, for cash.
Jamaica Coffee House, Cornhill. 34

PENDEEN CONSOLS MINE.—Mr. WM. BAWDEN, SHARE DEALER, 2, BANK CHAMBERS, RECOMMENDS the SHAREHOLDERS in the above mine NOT TO PART WITH THEIR SHARES until they have the mine inspected by their own agent, as it is fast improving. 35

£100,000 TO INVEST on MORTGAGE of MINERAL PROPERTY of ample value.—Apply to Mr. Wm. Williams, 16, Dock-street, Newport, Monmouthshire. 36

1858.—LETTS'S DIARIES?—WHAT ARE THEY?—Any bookseller in the kingdom will show you, and give a fully descriptive catalogue gratis. They are books for the pocket or desk, of very many different sizes, for reception or daily memoranda or accounts, appropriating each page to one day, two days, three, four, six, or seven days, throughout the year, according to the varied requirements of every age or class of society. Numerous tables of constant reference are appended. Prepaid orders, post free.
Letts, Son, and Co., Stationers and Map Sellers, 8, Royal Exchange. 37

GREAT WHEAL VOR UNITED MINES.—Notice is hereby given, that the QUARTERLY GENERAL MEETING of adventurers in the above mines will be HELD at their office, Gresham House, Old Broad-street, on Wednesday, the 16th of December, at Twelve o'clock precisely.
R. T. ALISON, Sec.
Gresham House, Old Broad-street, London, E.C., Dec. 5, 1857. 38

LIBERTY MINING COMPANY OF VIRGINIA.—A SPECIAL GENERAL MEETING of the shareholders will be HELD at the London Tavern, Bishopsgate-street, on Thursday, the 17th December inst., at Two o'clock precisely, to take into consideration the recent advices from the manager of the Vaucluse Mine, and adopt such measures thereon as may be deemed expedient or necessary.
Dated Dec. 10, 1857. By order of the Board, H. H. ROOD, Sec. 39

GREAT CRINNIS COPPER MINING COMPANY.—Notice is hereby given, that, by order of the Committee of Management, a CALL of SIXPENCE per share (completing the calls up to £1 per share), on the NEW SHARES of this company, be made, payable at the office, 27, Austinfriars, on or before the 26th December, 1857. By order, 40
Nov. 30, 1857. WILLIAM CHARLES, Sec.

CHOLLACOTT CONSOLS.—Without disrespect to Mr. Wolferstan, or any other gentleman, NO INDIVIDUAL SHAREHOLDER, or BODY COLLECTIVE, can GIVE the MANAGEMENT, either of Buckland or Cholacott Consols to another WITHOUT MY CONSENT. JAS. CARPENTER.
Anderton Cottage, near Tavistock, Dec. 11, 1857. 41

LLANELLY RAILWAY AND DOCK COMPANY.
CONTRACT FOR MAINTAINING PERMANENT WAY.
The Directors are prepared to receive TENDERS for the LABOUR of MAINTAINING the PERMANENT WAY of their RAILWAYS. Specifications may be seen at the office of the company, at Llanelly Dock, on and after the 14th inst., and the tenders are to be sent in to the secretary on or before the 26th inst.
Dec. 8, 1857. By order, RICHARD GLASCODINE, Sec. 42

MADRAS RAILWAY COMPANY.—Notice is hereby given, that the TRANSFER-BOOKS of the company WILL BE CLOSED from the 24th inst. to the 11th January next, both days inclusive, for the purpose of making up the interest account to the 31st inst. The interest warrants will be forwarded to the shareholders whose names are registered at that date in the books of the company.
By order of the Board, JAMES WALKER, Managing Director.
33, New Broad-street, E.C., Dec. 10, 1857. 43

BOMBAY, BARODA, AND CENTRAL INDIA RAILWAY COMPANY.—Notice is hereby given, that the TRANSFER-BOOKS of this company WILL BE CLOSED from Thursday, the 17th, to Thursday, the 31st inst., both inclusive, for the purpose of preparing the half-yearly interest warrants.
By order of the Board, C. H. KENNEDY, Sec.
Offices, 10, Liverpool-street, New Broad-street, Dec. 8, 1857. 44

CHEMICAL LABORATORY AND ASSAY OFFICE, 1, OXFORD COURT, CANNON STREET, LONDON, E.C.
Mr. R. V. TUSON, F.C.S., F.S.A. (late Demonstrator of Chemistry at St. Bartholomew's Hospital), may be CONSULTED on all SUBJECTS involving CHEMICAL PRINCIPLES; and is prepared to EXECUTE all kinds of METALLURGICAL AGRICULTURAL, COMMERCIAL, and other ANALYSES.
Mr. Tuson has a vacancy for a pupil, resident or otherwise. 45

WANTED TO LEASE, or otherwise, a MINE containing the ores of NICKEL and COBALT.—Address to Mr. Nichol, *Mining Journal* office, 26, Fleet-street, London. 46

WANTED, a GOOD SECOND-HAND PUMPING ENGINE. 36 to 45 in. cylinder.—Apply to W. H. M. Blews, Esq., Birmingham. 47

MOST EXCELLENT NEW BEAM PUMPING ENGINE, bore of cylinder 52 in., stroke 8 ft.—Apply to Wheatley Kirk, auctioneer, valuer, and machinery agent, Cross-street-chambers, Manchester. N.B. Only to be sold in consequence of a larger engine being required. 48

LOCOMOTIVE ENGINE.—FOR SALE, a COUPLED ENGINE, SECOND-HAND, but in superior condition, and just placed in thorough repair by one of the first makers in the kingdom; price low.—Apply to Messrs. G. Richardson and Co., 1, New Broad-street, London, E.C. 49

STEAM BOILERS MADE BY WILLIAM WILSON, LILY BANK BOILER WORKS, GLASGOW, on the most approved principles, and delivered in all parts of England at moderate rates. 50

LEAD FOR EXPORTATION.—PIG-LEAD (hard and soft) SOLD at LOW RATES. The BEST PRICE given for LEAD ASHES, &c., and OLD LEAD.—Roupell and Co., Southwark Lead Works, Gravel-lane, London. 51

NICKEL AND COBALT REFINING, AND GERMAN SILVER WORKS, 16, OOZELL STREET NORTH, BIRMINGHAM.
STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—

REFINED METALLIC NICKEL.	OXIDE OF COBALT. [WIRE, &c.
REFINED METALLIC BISMUTH.	GERMAN SILVER—IN INGOTS, SHEET,

NICKEL AND COBALT ORES PURCHASED. 52

THE MIDLAND IRON COMPANY, ROTHERHAM, YORKSHIRE, MANUFACTURERS OF RAILWAY TYRES AND AXLES FOR LOCOMOTIVE ENGINES, CARRIAGE AND WAGON WHEELS. From the tests to which this iron has been submitted by engineers and railway companies during several years, its superior quality has been generally acknowledged, and can be unhesitatingly affirmed. 53

QUARTERLY REVIEW OF BRITISH MINING.—Mr. MURCHISON'S REVIEW FOR PAST QUARTER is NOW READY, price 6d., at 117, Bishopsgate-street Within, London. 54

CORNISH MINE PHOTOGRAPHS—No. XXII.

"THE MINING VILLAGE."

A week at Wendron, the centre of the tin mining district, can be well spent in observing the peculiarities of Cornish customs and character, which are to be found here in greater perfection than any other district in Cornwall. Here the old customs are still kept up as of yore, many words obsolete elsewhere are to be met with, and tin streaming and mining seen to perfection.

This parish is very extensive, but lying out of the high road from any of the principal towns, is not so well known as many other parts. Tin streaming was formerly, and at a very remote period, extensively practised in this parish, as well as surface mining, some parts of the surface for many miles being literally turned topsy-turvy, presenting nothing but a series of banks and pits, many of which are in dangerous proximity to the high roads and pathways. These excavations, of which no record as to the names of the workers remain, are attributed to the "old men," a term often met with in mining reports, and of which this is the true definition. In no part of Cornwall have the old men been more industrious, or more successful, than in this parish, the aggregate value of their tin on which dues have been paid, as proved by the books of the Duchy of Cornwall and the lords proprietors, exceeding the enormous sum of 3,000,000*l.* sterling, and it is more than probable one-third more might be added for tin on which no duty was paid, for there is smuggling in this as in all other duty-paying articles; we think we take a fair computation at that estimate. At present tin streaming is but little practised, the streams being exhausted; but the tin found therein is exceedingly rich. The tin found in all the tin mines of this parish is of very excellent quality for metal, it being remarkably white and silvery in colour. The stratum is granite, and the lodes generally nearly east and west, having a north underlie. Several very rich mines have been opened from time to time, and many more have been abandoned. Here were the formerly rich tin mines of Wheal Trumpet and Caledra, which gave thousands on thousands of pounds profit. At present, the principal mines are Wheal Lovel, Wendron Consols, Porkellis United, Calvadnack, Tregonebris, and Wheal Ann, all of which, though not paying dividends, are producing mines, and looked on as promising concerns. Besides these, there are many mines of lesser note, but in the gross employing many hands. These, with their necessary stamps, furnish occupation for many thousands of persons of all ages, and both sexes. It is necessary thus to premise our photograph, that it may be the more clearly understood.

Our previous picture of "The Miner's Funeral" was enacted here to the very letter on Dec. 1, when no less than 3000 miners attended the obsequies of one of their number, who was killed at West Basset. "The Miner's Wedding," too, on Dec. 3, was exactly as described by our pen. Had we obtained the pictures from these subjects they could not have been more faithful. And now let us endeavour to transfer another, that will be recognised as equally true and equally frequent. The mine's descent has been given, and this task we had performed in the early part of the day of the poor miner's funeral. We found on enquiry underground why so few men were at their pitches—"Gone to berrin, Sir;" so in the evening, when we returned, we sallied forth to take notes for our sketch book. We found the village swarming with miners, their sweethearts, and wives, some from the distance of 14 or 15 miles, come to the "berrin." After a great deal of trouble we obtained a seat in the bar of the village inn, which was crammed as full as it could possibly hold; here was the landlord, who is the very *beau ideal* of a Cornish miner in his true element, surrounded by his fellows, with a violoncello in hand, singing (he sings and plays with admirable good taste) hymns for hours, in full chorus. We have often alluded to the singular custom of singing psalms and hymns in tap-rooms of public-houses. Here, then, they were in full swing, showing the "straingers" what the Wendron (pronounced Gwendron) men could do; then Redruth would have its turn, and Illogan its trial, relieving the performances by discussing the merits of the deceased. As soon as the first chorus was ended the landlord, an old Tresavean miner, stepped forward, and pressed me to take a tot (the term for a glass containing about one-sixth of a pint, saying, "Take hold and drink, strainger, you are as welcome as we." Having complied (it is deemed a marked insult not to do so), we were allowed to ask questions, which we did of a youth who had been explaining the manner of the poor fellow's death. On being requested, he furnished us with the following particulars:—"It was partly his own fault, Sir; he was 58 years old, and ought to have known better. I was in the pitch with en. Me and his son, who is my comrade, was working just above en, in the same pitch, not more than 14 or 18 feet off. The old man was shouling (shovelling) stuff away from under the stull. His comrade was breaking ore in the back. They had got a famous pile of ore broke, sure nuff, I dare say 5 tons upon the stull, they shouldn't have had half so much, when his comrade put in a gad, and a great big stone moved. His comrade called out, 'Stand out of the way, Uncle Jan, there's a big one coming; now, stand back, or you'll be killed.' 'Never mind,' said the old man, 'let en come,' but his comrade did not hit the gad again. His son and me called out to the old man to stand out of the way, when the old man went under the stull, instead of standing back; he called out he was all right and safe. As his comrade could not see him, he thought he was out of the way. The first blow on the gad brought down the great stone, and away went the stull upon the old man. I heard en squeak, and jumped, God knows how, from where I was to en. I wonder I wasn't killed myself. We were at en in two seconds, but he was smashed; he had the whole weight upon him. We got him out as soon as we could, but he was dead, and a wisht (melancholy) sight he was, but not half so bad as his son was, Sir; he was to be pitied, he took on so. 'Tis bad, Sir, to see a father killed."

After this narration, one of Wesley's hymns, appropriate to the subject, was sung, the landlord leading with the violoncello, and giving out the words. This finished, I enquired of the miner as to the character of the deceased; seeing so many persons present at his funeral, I supposed he was something remarkable. "He was a miner all his life, Sir: his name was John Moyle. He used to work at West Basset and many other large copper mines: he was a tributer, Sir, a very steady man, and saved up a good bit of money—besides, he was in three clubs. He was a good-natured man, and very much liked by everybody—almost everybody that knowed him were here to-day, and we are all sorry to lose en in such a wisht way. If he had died in his bed we shouldn't have cared; but to be killed and smashed up like that seems hard: but I suppose that will be my end; we are all of us liable to it at any minute, and we know it. I've seen many a bright fellow killed, but not smashed up like he was, but that can't be helped. It was partly his own fault, but his comrade blames himself as much for having too much on the stull. But he's dead and gone, and we hope his soul is gone to heaven." Then another hymn was sung, and another chapter on the abilities of the deceased as a miner. I noticed no allusion was made to any vices or peccadilloes of the dead comrade; it was really *de mortuis nil nisi bonum*—this would not be suffered. This is a good trait in their character, and should put fashionable scandal to the blush. At 9 P.M. the place was deserted.

On the following evening, after being underground the whole day, I repaired to the same spot, determined to find out where the innkeeper had acquired so much musical good taste, for he played and sang admirably, when I was surprised at the following colloquy:—"You're the gentleman that's been down inspecting the Consols, arn't you?" "Yes."—"Then I was at Tresavean when you was there. Do you know a man called Jenkin?" "Yes."—"He'll be here directly; he thought it was you. I do know you now well enough. Sit down. Well, I teached myself to play and sing too—we were all good singers when we got up to be men; and I endeavour to make good singers here now if I can. Boys, when they take it up young, like it; music makes them quiet when nothing else will; that instrument stops and prevents many a row, I can assure you, Sir; for, if they begin to quarrel, I takes out the article and strikes up a tune, when, if there's any noise, it is sure to be stopped by the company, and then I keep on until their tempers cool down a bit, and then the men are sensible enough. There's a deal of difference between miners now and what they were twenty years ago. Besides, when men are enjoying singing they don't get drunk. There's nothing got by a drunken man, he's a nuisance to everybody; and as no one will sit with them, they dispute what they've had, and there's no getting on; I've tried this plan on. All our young fellows that come here can sing, and I've no trouble; hardly ever such a thing as a row, and if there is one, it is amongst the old fellows, the young ones are right enough." Though I was here during the evenings of two pay-days, when upwards of 800 men were paid their month's wages, amounting, probably, to upwards of 3000*l.*, yet I saw nothing like disorder or quarrelling; now, I attribute this, in some measure, to this singular method of attracting men's attention. The person I allude to is a man of great penetration, and was long employed as a common miner.

On the Sunday I visited the church of this large parish, ten miles long by not less than six miles wide, but of which vast area, and so densely populated, less than fifty persons were present to hear a very excellent discourse from the incumbent, who, I understand, is of most exemplary character and most charitable disposition. The chapels of the various sects of Methodism in the evening swarmed with immense congregations, when their singing propensities and abilities were brought into full requisition, and I recognised the tones and the visages of the men I had seen at the public-house of the village. The ministers in these conventicles were in one instance a travelling preacher, who gave a very homely but excellently adapted sermon; in the other, a mine captain officiated, with far more ability than I could possibly have expected. The congregations were orderly, attentive, and, apparently, devout, departing with decorum, and in the evening not a person, except a stray wanderer or two, was to be seen in the place where, the evening before, they had been practising the devotional singing of this their Sabbath.

To form a just estimate of the character of a people, it is absolutely necessary to see them in their social as well as public phases—to visit them at their homes as well as in their workplaces. This we did also, and found them humble, but content; their homes cleanly and neat, though the furniture in general is scanty and bad; the horrid cesspool before the door, and the pipe universal in their homes as well as their workplaces. The people of this remote district, though poor and uneducated, are remarkably civil and communicative to strangers; they evince a readiness to give any information they possess, as to their locality, history, or employment, conveying a most favourable impression on strangers, which a few days' residence amongst them will assuredly confirm.

We conclude our notice thus briefly, as we purpose pourtraying other characters in other neighbourhoods, confining our notice of the mining character more particularly to the mining village. GEO. HENWOOD.

MEMS. OF MINES AND MINERS.—No. XXIII.

MR. ROBERT MITCHELL (of Truro), who is now in his 87th year, forms literally a link in the annals of our own times and the past, being connected with the then great copper and tin trades, as the principal managing agent and salesman for the firm of the Copper House Company. His was the task of visiting London periodically, to arrange with the East India Company's agent for the supply of their monopoly to the East. The task we term it, for then there were no coaches, few roads, and a visit to London was usually considered an era in a man's life. He well remembers when there was not such a thing in Cornwall as a cart, and scarcely a road where a cart could travel; when the ores and tin were carried on the backs of mules down the rugged paths from the mines, the ore being placed in small bags, containing about 1¼ cwt. each, 50 or 60 mules forming a company, called at that time a "paire of moyles," who wended their way accompanied by a driver and his dog, the voices of which were equally well known, and sufficient to direct their movements; when the tinner brought his tin to the melting house in driblets, had it weighed off, and returned with guineas in his bag instead of tin; when there was scarcely a tin mine in Cornwall; when Tregoss Moor, Carnon Stream, Nancothen, and other similar sources, were the great producing works for tin in the county; when our now vast copper trade was in its infancy; and when Copper House was indeed Copper House, large smelting works being in active operation. Primitive days these, indeed, and forming a vast contrast to our present facilities and operations. To him are vividly present the days when the steam-engine was unknown; when mining operations were necessarily limited to above, or very little below, adit level; and when the first rude engine was erected, to the amazement of some, the ridicule of others, but the admiration of all. He has successively marked its gradual improvement, up to the modern giant, Briareus. The skip-jack was in his boyhood the practical pumping machine, the rude invention of the semi-wild moorland tinner, the original type of the so-called western barbarian. How interesting, and how delightful must be the reminiscences of such a life, spent in such gradual improvements. To his recollection the time is when the gigantic fortunes of the Bassets, Lemons, Williams, and Daniels were, where their founders now are, beneath the soil; when those vast mines of untold wealth were in their native beds, ere the busy hum of industry had invaded their silent birthplaces; when the wild barren heath was only such, and not the scene of employment, comfort, and happiness it afterwards became, in consequence of its precious contents beneath; when the present populous, thriving mining market towns consisted of only a few wretched huts, and a howling wilderness, visited only occasionally by some adventurous traveller; when towns now almost deserted were in their palmy days; when electioneering was the chief support of the principal inhabitants; when the cry of Church and King was triumphant, provided cash was the accompaniment to the sound; when the glorious old days of hanging for looking over a hedge if a sheep were stolen were in existence; and when war was looked upon as a necessity of existence, and the French as our natural born enemies. How gratifying to him must it have been to mark the social as well as the commercial advance! Mr. Mitchell, like many other men of active habits in early youth, still imagines the whole responsibility of one of the largest mercantile establishments in Cornwall to be mainly dependent on his exertions and attention; he still continues to examine the accounts and assist in the direction of the affairs of the concern, with amazing energy, considering his lengthened years. Although in the natural course of events his career must be but brief, he may, by his well-regulated life and easy philosophic mind, survive many years, to his family's comfort and joy, and to the delight of many who may have the pleasure of hearing him recount the history of his younger days.

Capt. BENJAMIN CHAMPION (Reeth Consols).—At the decease of the late Capt. Dalby, this gentleman was put in as chief captain of these extensive mines, having occupied the post of second agent for very many years. These mines have now been at work for upwards of twenty years; though making large returns of tin, their dividends have been but few and far between; this has been no fault of Captain Champion or his sub-agents. We doubt if there be a more efficient tinner or miner in the county of Cornwall. He was brought up to hard work and honesty, paths he has never forsaken or disgraced. We could have wished him and his mine better success, but that we cannot command any more than he. When we speak of the captain, we do not hesitate to say the company have a most efficient servant: if long service be any criterion, we may judge they know it.

The late Mr. EDWARD SCOTT (Penryn).—The race is not always to the swift, or success to the deserving; had this been the case this gentleman's fate would have been far different. He, by injudicious management, lost a fine patrimony in mining speculations. At South Dolcoath, Camborne Vean, Copper Bottom, and other mines in that group, were his thousands buried. He was a bold but reckless adventurer, and met his misfortunes like a man. Though stripped of his fortune he never repined; and had he ten times the amount, such was his spirit of adventure, it would all have been staked. This kind of wanton expenditure does far more injury than good, as it is put down by the uninitiated to a wrong cause. Reckless adventure is not legitimate mining, and should not be reckoned as such. It is this error that leads mining into disrepute as much, or more, than any other cause, to its most serious detriment. Were we to begin to recount the memoirs of persons of this class we might fill a series of volumes as extensive as the Catalogue of the British Museum; we only mention this gentleman, who was ruined, as thousands have been, by foolishly investing his money, that we may not subject ourselves to the charge of painting everything and everbody *couleur de rose*.

VICTORIA IRON AND CEMENT COMPANY (Hinderwell, near Whitby).—This company inaugurated the starting of their blast-engine, of 160-horse power, on Wednesday, amidst a numerous assemblage of spectators, the ceremony of which being performed by Mr. Robert Joy, of Leeds, the company's first engineer, in the presence of Mr. Webster, of the firm of Cole, Marshant, and Co., of Bowling, Bradford, the builders. The christening of the engine, which was named the "Princess Royal," devolved upon Mr. Richard Browne, of Rosedale; it is an excellent piece of workmanship, and commenced work in very good style, and the greatest credit is due to the makers. The company afterwards adjourned to the Shoulder of Mutton Inn, at Hinderwell, and partook of a splendid dinner, which was provided for the occasion by Mr. and Mrs. Hodgson, the worthy host and hostess. After the cloth was drawn, Mr. Richard Browne was called to the chair, and gave the usual loyal toasts, after which the principal one of the evening, "Success to the Victoria Iron and Cement Company," which was responded to by Mr. Joy, who drew attention to the importance of this hitherto comparatively unknown district, so valuable for its extensive beds of ironstone, Roman cement, jet, and alum. The festivities were kept up to a late hour, with songs, recitations, &c.

Original Correspondence.

DIFFERENCE AS REGARDS THE DISQUALIFICATION OF DIRECTORS OF JOINT-STOCK COMPANIES.

SIR,—It would seem from the argument in Mr. Richardson's letter which appeared in your last week's Journal, that the 33d section is the only one in the Joint-Stock Companies Act, 1856, which relates to the contents of table B. If it were the only one I would admit the correctness of Mr. Richardson's conclusions, but as there are others, that gentleman's conclusions, in my opinion, cannot be supported.

Thus, the ninth section is as follows:—"The memorandum of association may be accompanied by, or have annexed thereto, or endorsed thereon, articles of association, signed by the subscribers to the memorandum of association, and prescribing regulations for the company; *but if no such regulations are prescribed, or so far as the same do not extend to modify the regulations contained in the table marked* B, *such last-mentioned regulations shall, so far as the same are applicable, be deemed to be the regulations of the company.*" So that this section gives power totally to displace table B, which power is in companies of any wealth, and the constitution of which is carefully framed, for the most part liberally exercised. Again, by section 10, it is declared that the articles of association shall be in the form marked C in the schedule, *or as near thereto as circumstances admit.* Again, on reference to the above-mentioned form C, it will be observed that the articles of association there given as a specimen altogether depart from table B—in fact, over-rule its most essential parts. Thus, there is an article that the regulations of table B, as to general meetings, numbered 22, 23, and 25, shall not apply. After these quotations, I cannot think Mr. Richardson will still adhere to his opinion and distinction as to *permissive* and *imperative* regulations.

The simple law of the point is that table B is entirely optional—that any company may adopt or reject it, either altogether or as to any of its parts. Further, that if the company has no special regulations, then table B will govern it so far as it is applicable; but if after the company is incorporated it be desired to alter or recall its regulations, that may be done by virtue of section 33, which clause, as Mr. Richardson suggests, is applicable only *after the incorporation* of the company.

Mr. Richardson remarks "that it can scarcely be contended that such regulations as 'that the directors shall cause true accounts to be kept,' and other like clauses, can be got rid of by any special resolution of the shareholders." But to that I answer that they may all be omitted from the regulations. My experience of the constitution of mining and other companies is that the lawyers advise a considerable departure from table B, and do not recommend amongst other points the adoption of the absurd and terrible balance-sheet which adorns table B.

As to the Port Phillip Mining Company, I should say that the shareholders have a right to see the minute-book referred to, notwithstanding the deed of settlement has no clause permitting them so to do. The law does not require a special power in order to confer so clear a right. The directors are the agents of the shareholders, and the minute-books are the property of the latter.—*Dec.* 7. T. T.

THE IRON QUESTION.

SIR,—I am not by any means annoyed by the remarks of "M. D.;" on the contrary, I am at once amused and edified. Your correspondent must, however, again revise his figures, for, except the "certain gentleman in London," no one else has ever dreamed of the thirty specifications laid to my charge. I would, in passing, remind "M. D.," that to designate an individual by the ambiguous title of a "Certain gentleman," however applicable the term may be, and no doubt is in the present instance, is nowise complimentary or flattering to the party alluded to, whosoever he may be. I have not, however, sent thirty specifications, or even twenty, to my office in London; so I imagine the "Certain gentleman" has, perhaps, been indulging in an after-dinner reverie; a period of our daily existence when the mental powers seem to be occasionally gifted with two-fold vision, and in this belief I am strengthened by the fact that the multitude of specifications still laid to my charge is about double that of their actual number. Of the the ten specifications which I really forwarded to an office in London, three, of great value, were filed, as were also three more of a speculative character, and two, of paramount importance and unquestionable value, were stifled and suppressed; why and wherefore I leave it to a "Certain gentleman" to explain, if he can. It was not because they were deemed of too little importance to justify the expenditure requisite to secure them that they were suppressed, for they were worth a score of the speculative patents which were actually filed. I am well aware that an inventor is too apt to over-value his inventions, especially if he be a mere theorist; but when he is a practical man, and is careful to test every step of his processes by experiments carried out upon the scale of manufacture, he is less likely to form a false estimate; and in such cases it sometimes happens that a discovery, which when made is not considered by another practical man to be worth 100*l.*, is, nevertheless, paid for at some future period by the same practical man at the rate of 100,000*l.*, when the said practical man has found out the value of it.

I shall be greatly obliged to "M. D." if he will, as he kindly suggests, give me some further information as to the peculiarities of the several processes patented, and the reasons that they cannot succeed. I wait with respectful attention for his invidious explanations. As he appears to be familiar, through a "Certain gentleman," with thirty specifications, or about twenty more than I am myself conversant with, he can no doubt throw great light upon the other ten processes. Next week I hope the oracle may prove propitious through the "familiar" of the "Certain gentleman."

The Ebbw Vale Company having purchased the Uchatius patent, are, I would venture to suggest, the principals, not the agents, in the matter. I imagine, if "M.D." has at any time become the purchaser of a "practice in town," he would scarcely relish being called the "agent" of his predecessor. It is painful to learn from "M.D." that the sensitive honour of the atomics in the cause of science has led them to decline my challenge. I fear I may have so far lacerated their tender sense of propriety in regard of what is due to science, that even the 10,000*l.* they have received for their "Atomic Bantling," or "Scientific Progeny," may have proved inadequate to soothe their chivalrous breasts, or insufficient to pour balm upon their wounded feelings. Let me hasten to relieve them, and to suggest that the trial of skill shall be made for "honour bright," and not for the *auri sacra fames*. I should, perhaps, alter my tone if I saw good steel *made* at Ebbw Vale by the Uchatius process; but the using good steel at Ebbw Vale, made by that or any other process, would convince me, but the making of the steel. "M. D." doubts if any one has seen a bar of my steel made by any of my thirty processes. I fully coincide with him in his doubts as to the supplementary or imaginary processes which rose before the mental vision of the "Certain gentleman in London," when indulging in his postprandial reverie, having ever resolved themselves into even an atomic bar of steel; but, as regards my own processes, I will at once, and finally, put an extinguisher upon the bantering propensities of my friend the "M. D."

I invite him to pay me a visit, and to bring with him, if not *infra dig.*, any sample of old scrap iron, or any ten such samples, it matters not to me whether Welsh or English iron, and I will in his presence, and before his eyes, melt the one sample, or the ten samples, at his option, into ingots of cast-steel, which he shall see drawn into bars, and which bars may then be applied to any purpose for which cast-steel is in demand, and the steel shall in every instance stand test, and will possess what is technically termed "body" and "nature;" and "M. D." may put the scrap iron into the pots himself, and watch them till the steel is melted and poured into the moulds. I suppose that this proof would satisfy even the sceptism of an "M. D."

"M. D." asks me if I could not send a piece of my steel to your office. I long since offered to do so, but my offer was not accepted.* I will send a ton of my steel to your office, if "M. D." wishes for it, to carry about in his pockets, so that he may become a man of greater weight than ever. As I am not a chemist, though I know the chemical alphabet, "M. D." need not fear that I am about to besiege him at that point, and so he need not cram for the occasion; but I cannot help thinking that I have elicited a "chemical curiosity" by my former remarks, and such a one as I never before met with.

"Justitia" need not disturb himself about my critical position as regards the atomic challenge. There is no fear, and very little danger. I must again confess my ignorance of the doings of Messrs. Lenz and Roper, and I am enlightened by the interesting intelligence which "Justitia" now imparts respecting Mr. Roper—"He is at Ebbw Vale, employed in the same manner that Mr. Lenz was." How brief, how touching, how pathetic is this announciation, and what delightful ambiguity veils its hidden meaning. We are left to conjecture what may be the perils dared, the difficulties vanquished, by the youthful hero "who would be a steel easter." The dream of his childhood, the settled purpose of his riper years, the high behests he must fulfil, these thoughts rush tumultuously upon his manly spirit. He is well nigh overcome, but the eyes of Europe are upon him, Silurian murmurs fill his ears, Baron Uchatius and the majesty of Prussia loom grandly in the back ground, and at Sheffield the pot pullers are shaking in their shoes, and their masters preparing to emigrate to some foreign shore, their occupation gone. Thirty steel processes sent in the office of a "Certain gentleman" in London hang threateningly over him, and their dread array seems lengthening out to the very crack of doom. In vain, for hope knows no fear, armed with "a red-hot tongs," he rushes to the furnace and pulls not a pot, but a very wry face. But the subject is too exciting, and I must reluctantly turn away from its further contemplation. I have been given to understand that Messrs. Kroeft and Co. were Uchatius's agents in England. Perhaps that portion of the honour (for in the cause of science filthy lucre is out of the question) may have devolved upon the shoulders of the "Certain gentleman" in London, and "Justitia" must ascertain from "M. D." where in the vast metropolis the "Certain gentleman" hangs out. When "M. D." again volunteers to inform the public respecting my processes, I would advise him to be at least accurate in his statements, for it makes a man, and especially an "M. D.," appear exceedingly petty and invidious when he twice commits himself in the most ridiculous manner, in giving his unasked for information. If he be a hanger-on at the office of a "Certain gentleman" in London, he ought really to have informed himself of the correct number of my processes, before attempting to turn critic upon the merits of the processes themselves. I say so tempting, for to suppose that correct criticism can be founded upon false premises, or carried on by a party utterly ignorant of the subject he wishes to criticise, is repugnant to common sense. Possibly, as "M. D." knows so much about my patents, he may have been the learned censor who weighed in his balance the merits of these processes, and rejected those that he deemed wanting; and, if so, I need not wonder that the wheat was rejected, and the chaff set store by. Perhaps he is himself the "Certain gentleman" in London, and perchance he may become the theme of "household words," though I think there is already a "patent annihilator" in the field. In

* Mr. Mushet is here in error. We have never refused, or had an opportunity of refusing, such an offer; on the contrary, we should be glad to have a specimen made for the inspection of those interested.—ED. *M.J.*

conclusion, I offer a word of advice to all those who may contemplate the rash act of perpetrating a patent—avoid the offices of all "Certain gentlemen" in London, for when patents get into these legal lobspounds it would puzzle a "Certain gentleman" to get them out again.—*Coleford, Dec. 8.* ROBERT MUSHET.

CAST-STEEL PATENTEES.

SIR,—My brother, Mr. D. Mushet, is like myself—somewhat prone to indulge in a joke. At the time the experiments to which I have alluded were made at Darkhill furnace I was, as my brother has remarked, an infant in petticoats; and my brother, being five years my senior, must have been about seven or eight years old, rather an early age to follow up laborious experiments, day and night, for a whole year. So neither of us can say much about the matter from our own experience at that time. What I have stated is quoted from the details of my father's experiments, recorded by himself at the time. As I wish that he should have the credit of having first taken up the idea of manufacturing cast-steel from the blast furnace, I will now quote his own remarks.

"Experiments on Iron and Steel, Coleford, April 16, 1820:—In the course of making iron at Darkhill it is found that a new species of cast-iron is obtained, beyond the quality of finers' metal. This iron is honeycombed, steel grained, files soft, and in many instances may be mistaken externally for grey iron. Pieces of it recently run from the furnace, plated to some extent, and by plunging into water, were found to harden in a manner similar to steel. It was not expected that the iron thus made with coke would, under any circumstances, form a quality of first-class steel, but it might lead to a proof whether or not the making of ordinary cast-steel in this way was a practicable manufacture. In melting and running this iron there was a considerable resemblance to cast-steel, only it was much more fusible, melting at a lower heat, and with more facility. The fracture of the ingots presented, as in cast-steel, rows of silvery honeycombs, and a distinct grain, dull and whitish grey. When plated by hammering the grain became more distinct, and when hardened it had a bluish and still more distinct steely grain," &c.

My brother is probably not aware of the progress which has been made towards running marketable cast-steel from the blast furnace. If he could pay me a visit I would show him that there is nothing wild at all in the idea, but it is one of the many great ideas which originated with my father, and which must, in a year or two, come into universal adoption. Nothing but the apathy of parties, whom my process would enrich to an almost fabulous amount, prevents the matter being publicly carried out in a few months, and with a most trivial outlay.

In my father's experiments, at Darkhill, he sought to produce finers' metal, but obtained in place of it crude cast-steel, difficult of fusion in the puddling-furnace, and this seems to have been one of the drawbacks to its use at that period. I may be in error as to the 4 lbs. pillar of blast, but I have been informed that it was so by Mr. Walkingshaw, the furnace manager, and who at the time suggested the application of tuyeres underneath the small hearth, thus, though unconsciously, originating the great Martien idea.

In conclusion, I hope that my father's memory may never suffer at my hands. Not very long before his death he made use to me of this quotation—"Behold how good and how pleasant it is for brethren to dwell together in unity." With all kindness and sincerity I commend the consideration of these words to my brother; they are worth all the steel processes ever invented put together, even including the memorable "thirty" which reached the offices of "a certain gentleman" in London.

Coleford, Dec. 8. ROBERT MUSHET.

MANUFACTURE OF CAST-STEEL.

SIR,—"Sideros" has misunderstood me; I never did complain that he had not sufficiently eulogised Mr. Bessemer. What I complained of was that he should assume a spirit of friendship and disinterestedness, and at the same time infer, and try to make it appear, that the Bessemer iron and steel was good for nothing. "Sideros" must admit that of all the several processes which he reviewed—Bessemer, Martien, Mushet, Uchatius, and Pauvert—he could discover merit (that is, commercial value) only in Mushet's. It is true he admits that the Bessemer process may be valuable if combined with Mushet's invention, but alone he pronounces it to be valueless. It is upon this point that we chiefly differ.

"Sideros" now asserts, moreover, that he did not state Mr. Bessemer *could* not overcome the difficulties which stood in the way of the full development of his invention. "I did not even hint," says he, "that Mr. Bessemer never *would* or never *could* overcome it." Does he, however, dispute the parentage of the following passage:—"The Bessemer iron is, therefore, not commercially valuable. The inventor had succeeded in expelling the carbon and silicon from cast-iron, but the sulphur and phosphorus remained, and, worse than these, a portion of oxide of iron became diffused through the mass, and imparted to it the inveterate hot-short quality, which no subsequent operations could expel." Then, after dilating upon this point, he says—"Bessemer failed, however, to surmount this seemingly trifling but really formidable obstacle, and the consequence was that, though he had made one stupendous step in advance of the whole metallurgical and scientific world, he, nevertheless, lost all credit, because he was unable to take the second step towards complete success." Now, although he did not say he "never would or never could" overcome the difficulty, it is quite clear that he said he was *unable* so to do. It is also equally clear that he has asserted that the employment of manganese with or without an accompanying alloy of iron and carbon would have the effect of uniting with the oxygen of the oxide of iron, and cause the same to pass off as slag. Now, this we admit, but to whom is the credit of the discovery due to—Mushet or Bessemer? To the latter most decidedly; for in his patent, dated March 15, 1856, Mr. Bessemer says, in reference to the oxide of iron present in the fluid metal—"I force on to or into such fluid metal carburetted gases, or introduce therein fluid or solid carbonaceous substances, in sufficient quantity to combine with any oxide of iron that may exist in, or interfere with, the malleability of the metal." And in another patent, dated May 31, 1856, he says—"Small quantities of lime, silica, or alumina, may be added with advantage; and so in like manner chloride of sodium, iron scales, oxide of manganese, and other salts or fluxes, may be used to assist in the separation of the impurities contained in the crude metal, as have before been used for like purposes; and the application of the same is not claimed by me under the present letters patent." In the same patent a number of alloys, made by oxides and otherwise, are specified, thus clearly proving that he was fully alive to the importance of the employment of manganese and an alloy of iron and carbonaceous matters nearly four months prior to the date of Mushet's patents. "Sideros" will thus see that I have not alluded to any undisclosed processes, but simply to those which are published to the world. If Mr. R. Mushet has invented anything of value, I wish as heartily as he can himself that he will be well rewarded. It is hard enough for an inventor to combat the difficulties which invariably beset the development of new ideas, without the additional vexation of being harrassed afterwards by rival interests or surreptitious claims; and I believe I am the last man in the world who would desire to place difficulties in an inventor's path. I am perfectly disinterested in the matter, and if I am wrong in my conclusions respecting the merits of the several inventions under discussion, or of the claimants thereto, I am quite willing to be set right, and, at the same time, expect that "Sideros" is equally open to conviction. My chief desire is that truth may prevail, and that right may never be overcome by either subtlety or might. WILLIAM GREEN.

Pembroke Cottages, Caledonian-road.

MANUFACTURE OF CAST-STEEL.

SIR,—Allow me to thank Mr. R. Mushet for removing the mists which had beclouded my mental vision. I certainly did wonder how he would be able to avoid trespassing upon Mr. Bessemer's patent rights, and the simple expedient which he proposes to adopt—paying for so doing—speaks well for his honesty. I do hope, therefore, that he will be abundantly successful in his efforts, since that in such case others will be benefited as well as himself. But, alas! he gives us the hint that we must not be too sanguine as to results. "It is not all gold that glitters." An ugly supposition follows the fair promise. "Suppose," says our friend, "there should be some other convenient process for purifying iron, besides those invented by Messrs. Bessemer and Martien, may I not carry out my inventions by the aid of the said other process?" Assuredly you may, Mr. Mushet, if you can. But has not your experience shown you the folly of resting your faith upon so visionary a supposition? You may put your iron, your fuel, and your triple compound of iron, carbon, and manganese into the furnace, and blow upon it with a high-pressure blast until you are tired, and after that may begin again, if you so desire, and certainly I shall never complain. But you must recollect that Mr. Bessemer's inventions are not confined to the purifying of iron by forcing currents of air into molten crude iron, or re-melted pig, cast, or refined iron, whilst in the fluid state. Oh, no! Mr. Bessemer was aware of the existence of certain carbonaceous matters, and also of manganese, and was sensible of their importance in connection with air-purified iron before Sept. 16, 1856, as the patent records will clearly demonstrate.

As regards the combination of the Mushet and Martien processes, the former gentleman cannot be serious. It would, indeed, require some remarkable and mysterious agency to combine Mr. Mushet's compounds, even when in the fluid state, with the molten iron as it flows down Martien's gutters—that is, supposing the said fluid iron to be so very submissive as to flow down the gutters or channels whilst being operated upon by currents of air from beneath, and assuming, moreover, the practicability of bringing the air into subjection to this kind of treatment. When, therefore, these two processes are combined successfully, both of these gentlemen may expect some very astonishing commercial and pecuniary results. By-the-bye, has Mr. Mushet ever tried his inventions in connection with Martien's?

But Mr. R. Mushet would take credit to himself of not having been "exactly so dumbfounded by the Bessemer display as Mr. Green and others seem to have been," and for the simple reason that when he was a child in petticoats he witnessed certain iron experiments, from which some steel-like products resulted, and which were made by his late father, whose knowledge, he tells us, was "a century in advance of even Mr. Bessemer's ideas at the present day." As regards the sound practical knowledge of the late Mr. Mushet in matters relating to metallurgy, too much cannot be said. To him the iron trade is much indebted, and his memory must ever be held in high esteem by every well-meaning man, who appreciates progress in science and the arts, but especially by inventors. It is unfortunate, however, that the son of so able a man should not possess greater powers of discrimination. I presume Mr. R. Mushet does not now wear petticoats—at all events, he is beyond the age when such graceful adornments are usually worn, and therefore should be able to distinguish between his late father's experiments for making "finers' metal" and those of Mr. Bessemer for making cast-steel. I am glad it has not devolved upon me to disprove his assertions. The discrepancy between his own statement and that of his brother is, however, so wide, that if that of the latter be correct, which I do not for a moment doubt, then but little reliance can henceforth be placed upon Mr. R. Mushet's opinions relative to the iron question. I hope it was an unintentional mistake, and not an error for the purpose of misleading the public. Yet, surely, he should have known the difference between a 4 lb. blast and one scarcely amounting to 1½ lb. per inch. Perhaps, however, the error got fixed upon his mind when he was in petticoats, and we all know how difficult it is to set aside early impressions.

But there is one point upon which Mr. R. Mushet and I are quite agreed, and that is, that when air-purified iron is properly treated it yields the "finest steel in the world." We are not quite so well agreed, however, as to the *necessity* of calling in the aid of Mr. R. Mushet's inventions for obtaining these results. Doubtless, his triple compound of iron, carbon, and manganese may be very good, but do not Mr. Bessemer's patents comprehend compounds equally efficacious? Assuredly they do, and although he may not desire to trumpet to the world the details of the several processes by which he obtains his results, they are nevertheless sufficiently secured to him, and may be discovered by any impartial person who reads his patents.

As regards the presence of phosphorus in malleable iron, Mr. Mushet and I are also pretty well agreed. In my allusions to phosphorus and the oxide of iron, I merely stated that I considered the former the greater evil of the two. Doubtless, phosphorus is an "essential ingredient in good iron," and the experiments made at Woolwich in Sept., 1856, tend to confirm this opinion. The trials then made were upon a mass of iron about 15 in. long by 6¼ in. square, made from Blaenavon pig, just as it came from the iron mould into which it had been poured. The chemical analysis was made upon a portion of the ingot taken before making the bloom, and selected from a solid inner portion of the mass. No silicium whatever was detected; no trace of graphite, or of uncombined carbon; combined carbon, not exceeding 0·3 per cent.; phosphorus, 0·44 per cent.; sulphur, 0·056 per cent. Yet this iron, although crystalline, proved to be stronger than two samples of good fibrous iron, and nearly as strong as two other samples of the best fibrous iron. The least excess of phosphorus, however, is not only objectionable, but absolutely fatal to malleable iron, and experiments made in May last, at Woolwich, upon the Bessemer iron, prove that it can by that process be made as free from delsterious matters as by any other method. WILLIAM GREEN.

Caledonian-road, Dec. 8.

"SLICKENSIDES."

SIR,—I have been, for some weeks past, on the look out for Mr. Henwood's proffered further remarks on "slickensides"—not that I see anything in them that will materially aid miners when in search of mineral deposits, as I have myself generally considered them ill omens, for I believe them to be only, as I before stated, the result of friction, produced by the gradual sinking and rising of rock between cross lodes, which cause the faults or heaves. The grooving on the face of them are at all times found to be in the direction of the move; the brightness is accounted for by the joints being water-tight, which prevent their corroding. There are many different colours which occur from the various composts of the rock; black ones are most general, but I have seen pale and deep red, and even white ones in lodes.

There are two kinds of "slickensides"—the sort I have just alluded to in lodes, and those occurring in irregular stratified rocks. The latter are produced in certain strata from carbonic and bituminous substances with which the rock abounds: these are too often by many blended, and set down as the result of one and the same cause; but, as I have before stated, I really cannot see anything in either sufficiently useful, or worthy of the attention of practical men, in preference to a far more interesting phenomenon daily presenting itself, and better deserving Mr. Henwood's consideration, and that of all practical men. I must say I was struck with the remarks of Mr. Hopkins, where he spoke of their exploding, and with such force as to injure the workmen. I thought it strange for "slickensides" to explode, the substance being so thin. On mentioning this to an old Practical, he informed me that at Vitifer Mine, on Dartmoor, levels were driven through dense granite, at a cost of 15*l.* per fm.; and after it had been freed on one side, the men had to leave the level for a while, as the rock would explode, and at times as loud as the report of a blast with powder, and with such force as to remove large masses, the fragments of which have been known to injure several men, and in one instance fractured a man's ribs. What is more singular still, the lode in this hard rock presents the appearance of a black tinny capel, composed of quarts, micaceous iron, schorl, and the oxide of tin; indeed, it was found so hard that it had to be blasted with powder, and after removing what they had loosened by blasting the hole, they would again leave the level for a time, and in about an hour a cracking noise would commence, continuing for some time. After it had ceased, on examining the level, it would be found that the lode had become loose for a foot high, and when touched it would fall with ease; but when this portion had been removed it again required to be blasted, when the same phenomenon would occur. This is not the result of "slickensides," as I am not aware of any having been seen in the mine.

I am inclined to think that the explosion spoken of by Mr. Hopkins proceeded from the same cause as those at Vitifer; it must have been from the effect of something within the rock. The cause of these explosions is worthy of our best attention, and the only way I can account for them is, that after liberating the adjoining rock some fracture, caused by the explosion of the hole, admits the oxygen of the air to where the rock contains an explosive substance, when a chemical action takes place; hence the explosion. It is a well-known fact that large pieces will continue to fall from hard granite levels for many months after they have been driven, and the levels often become smaller; and further, levels in rock that have to be removed by powder after a time require to be timbered, to prevent their coming together.

Having given my views on this subject, I shall read with interest the opinions of some of our learned theoretical friends on this matter—not that I think it will assist the practical when searching for the hidden treasures of the earth, but, on the other hand, it would be illustrating one of the freaks of Nature; thus we might be led on to discuss a second, which might probably be of some assistance to the explorers of the bowels of the earth.—*Wivelscombe, Dec. 7.* N. ENNOR.

P.S.—I quite concur with Mr. Hopkins in his remarks to Mr. James. I have long since arrived at the conclusion that the igneous theory is only a delusive guide to young students, and will, I feel assured, die a natural death within the next half century. I never yet met a practical person who studied his work that believed in it; nor can I discover, after giving the matter much attention, anything to support such a belief.

HINTS TO MINING COMPANIES.

SIR,—There is much truth in the able remarks of your correspondent "T. T.," and I think myself that the clause I suggested (preventing directors from trafficking in, the shares of their company) would in many instances not answer in practice. I prefaced that suggestion by a short definition of the object aimed at by, and the advantages derivable from, the formation of a company; and in making it, I looked upon directors solely as the official administrators of a company's affairs, and I left out of consideration all such circumstances as depend in their nature, more or less, upon the nature of the respective company, but which circumstances are, indeed, often of very great importance in practice; such, for example, as the advantages which a company may derive from the influence and position its directors possess as private individuals. Certainly, where it is clear that a company could only gain by the (private) influence and position of its directors, more latitude ought to be left to directors, and such a clause as the above would decidedly be impractical; nor would it be admissible in any case where it might have the faintest tendency to exclude from the direction men of honour and worth; as the presence of such men is decidedly most essential for the well-being and success of a company, for reasons enumerated by your able correspondent "T. T." It is often very difficult to exclude from the direction men of a questionable moral code, more especially if they possess, and know how to wield, the weapons of Plutus; and some late events would appear to point to the desirability of a kind of Magna Charta, of such clauses in the constitution of a company, by which the interests of the shareholders would be more amply protected.

I presume that laws are made in order to be kept; and the reasons why in mining companies generally no reserve funds are instituted must be either very weighty indeed, or such that they have to shun investigation; for such a provision in mining companies would be productive of immense benefit to the shareholders and the whole community. The question in general certainly appears to be one that would greatly improve in health if it were allowed to breathe a little more of the fresh air of impartial investigation; and there is no doubt but that the public would be greatly benefited if the matter be taken into serious consideration by such practical and experienced men as your able correspondent, "T. T." G. J. GUNTHER.

Dec. 10.

CONDUCT OF MINERS ON REDUCTION OF WAGES.

SIR,—I attended a setting and pay-day on Friday, the 4th inst., to witness how the men, upwards of 300, would bear the reduction of their wages (about 20 per cent.) It was expected some grumbling would have taken place, but, like in many other mines, not a pitch was refused at the captain's prices. The reduction will become general throughout the county. A corresponding reduction must and will be made in materials. When these shall take place, and when the standard shall advance a little more, of which there are signs, there will be much better hopes for mining. Indeed, I see no cause whatever for despondency, but great reason for hope. None of the mines in our neighbourhood, of any pretensions, have suffered much depreciation in price in consequence of the fall in metals. We feel they must again revive. Those who must sell will suffer for the time, but many are holding all or part of their tin until the price mends, when, like other monied parties, they will sell at the proper time. Money makes money in this as in every other instance. Our men are quite contented, and take their work readily at the reduction. GEOS.

Helston, Dec. 8.

CARELESSNESS OF MINERS, AND FREQUENCY OF ACCIDENTS.

SIR,—The Cornish papers have lately recorded an unusual number of accidents. The correspondent furnishing the information makes this comment:—"Nine-tenths of the accidents occurring in our mines arise from carelessness." Now, Sir, it appears to me that the captains and those in power ought to show the men under them a good example, and afford the men better accommodation for underground working than is to be found in many mines. The miners' safety and comfort are neither studied or cared for by captains I know to be otherwise kind-hearted men; but underground they, being so accustomed to danger, are perfectly callous; still the utter neglect of common caution amongst the men themselves is reprehensible and astonishing. Being underground a few days ago, examining a very wet and extensive tin mine, I sought out a dry place in which to make my notes. I had some difficulty to find one, when just as I had commenced writing, a miner, with his candle in his hat, came close to my side, to gain the benefit of my light, when he deliberately pulled out a bag containing about a pound of powder from beneath his flannel shirt, and proceeded to pour it into his tin powder-can. And this fellow was actually smoking a pipe. On being remonstrated with, the reply was—"I've done it thousands of times, and never came to any harm yet. There is no danger." Yet, had a spark fallen from his pipe or his candle, six or eight men would have been annihilated.

Wanton heedlessness or thoughtlessness, perhaps, cannot be guarded against: but Mr. Editor, will it be believed by you, or by the public, that I was at a setting of work on a mine on Friday last, where upwards of 300 men were assembled in front of the powder-house, and some of them actually leaning against the door of the magazine whilst smoking their pipes! I observed that at least one-sixth of the throng were occupied in that almost universal employment whilst awaiting the time for setting. This magazine contained at the time (as I found on enquiry) no less than 1½ ton of powder. There could not have been less than 500 human beings within the range of an explosion! This dangerous place is, contrary to law, within 100 yards of a thoroughfare, and in dangerous proximity to dwellings. It ought to be removed for the public safety, as the passers by are in as much danger as those whose business it is to be near the spot.

In the hope that I may be instrumental in averting a catastrophe, and for no other reason would I do it, it being no business of mine, but I do it as a public duty, I shall name the place—Porkellis United Mines, at Wendron; so that if some of the shareholders see this notice, they may be induced to enquire into the allegation, and if found correct to order an immediate alteration. It may not be known to them, but they may depend on it a heavy penalty, as well as responsibility, hangs over them, from allowing such quantities of powder to be so near a high road.

That there has been no accident is the miners' argument, but is utterly futile; that there may be is the real argument. And if men be permitted to wander about with lighted pipes in such situations, I know which of the two is the most probable. Example is better than precept: show the men this, and some caution will be used. Let the men have greater convenience underground, and there will be fewer accidents. I was down a mine a short time since, 80 fms., where there was not a single collar from top to bottom, nothing but a brace at changes of ladder, and not a single guard rail the whole distance. On asking the captain if a man fell away and was killed, whether he did not consider himself responsible, and the company liable to an action, his reply was—"I don't know: it was so when I came, and our adventurers order the mine to be worked as cheaply as possible. I can't get a bit of timber for anything, but they are grumbling."

It is false economy to have a bad footway in any mine; it saves time and labour to have a good and safe one. If a man be killed or lamed, and if it be proved that the mine was not safe, from over economy or neglect, you are all and every one liable, in your purse and persons, for the consequences. A few short, strong ladders underground are a great comfort and convenience to miners in getting up stopes, and going about from one place to the other, and should be in every mine. Yet in how few are such things to be found. A reprehensible plan, too, is in planking over sinks and winzes to put the round side of the slab downwards, as is generally done. The round side uppermost, though not presenting so broad and firm a footing as the sawed one, is much more safe, the plank being liable to turn away, and throw the man down into the hole. I saw an instance of this a short time since, where a poor fellow was like to have gone from the 30 to the 40 fm. level. Fortunately, he was enabled to cling to a support as he fell off his legs.

These suggestions may appear trifling to many, but that they are necessary I am convinced by experience; and in the sincere wish that they may direct the attention of agents to urge more attention on the part of their men, I offer no apology for this long letter.—*Wendron United Mines, Dec. 8.* GEORGE HENWOOD.

REDUCTION OF THE PRECIOUS METALS.

SIR,—In your Journal of Nov. 7, you published a plan proposed by me for reducing or concentrating copper ores. On Nov. 14, Mr. Godefroy made some deprecatory remarks respecting it; but if he will again refer to my letter, he will see that I did not positively state that silver evaporates; indeed, I am quite of the contrary opinion If such be the case, I should think it is a great advantage; as I should propose to condense such fumes, or vapours, if I might be allowed to make use of such an expression, as I should think that it might work profitably.

I am not prejudiced to his operations, as the silver obtained from ores is always desulphurised when it only contains silver not combined with lead or copper. The advantages of his process appears to me that there is a complete desulphurisation of the silver by means of steam of a high temperature and caustic alkali, or any articles possessing an alkaline base. Supposing the silver does evaporate by heat, this plan would be better than decomposing it by fluxing with salt. As regards the obtaining of silver from pyrites, I think it is beyond the question of a doubt that each can be obtained from pyrites existing in many mines in Cornwall and elsewhere.

With reference to my plans for reducing poor copper ores, I am quite able to substantiate it, by its being done by many large chemical manufacturers; and as regards trusting any chemical processes to workmen, it is perfectly ridiculous to suppose that such can be entrusted with any operations without a manager of competent judgment and chemical knowledge. As regards the working expense of my plans, it would not exceed 5*s.* per ton, on a large scale; and the value of vitriol produced would compensate for outlay of capital, and realise a large profit on the ores that are now considered worse than useless.

Allowing that the manufacturing chemists make large profits, it is only when their operations are carried on by practical and scientific men, as without the knowledge of the science they cannot progress; and it sometimes occurs that they are great losers by men of too scientific or theoretical notions, who, I might say with truth, do more mischief, and incur greater losses, than a man possessed of the mere routine. You often hear capitalists remark that theory and practice are of a very different nature. Such is certainly the case; but we must remember, that unless it is based quite right upon the theory, it will never succeed. What is the reason, Sir, that such remarks are made? Simply, because that men of science, if I might call them such, are more of a middle class of men, that are not possessed of sufficient science and practice, create or invent notions that are likely to please the public, at the same time they cannot prove or carry out their plans. I should think the sooner such men are removed from interfering with practical chemists who are making large profits, the better it would be for them and the public.

I have no other interest in bringing this before your readers, than a wish to draw the attention of some of your miners to the fact, that the chemists, like the smelters, are living, I might say, on their want of confidence and inattention to their own interests; and that thousands of tons of ore, possessing silver and copper, are annually thrown away; when, if they were to look after their own interests, they would find plenty of sale for vitriol, if they should think fit to make it, and also be able to mak mines that are considered unprofitable realise large profits. JAMES JEFFERIES.

Kenmore, Perthshire, Dec. 8.

JOBBING PURSERS AND MANAGERS.

SIR,—I often notice in your Journal remarks upon the mischief done by jobbing pursers and managers of mines, but nobody seems to have taken the bull by the horns, and endeavoured to put a stop to this evil. It is high time, however, that some general understanding should be come to on this subject among mine adventurers, and an extinguisher put upon a practice which, wherever it prevails, destroys the confidence which is so essential an element in mining business.

Formerly the purser or manager of a mine was regarded as a confidential agent, to whom any shareholder might apply for information or advice, with the assurance that it would be disinterested and reliable; and in this light most of the officials in Cornish mines may still be regarded. But, unfortunately, of late years there has sprung up another class of agents, who blend with the pursership or management of a mine a new function, of a very suspicious character—they are regular jobbers in the shares. There is no secrecy in the matter; openly and notoriously they are always in the market, and are generally the most extensive dealers in the property which is entrusted to their management. They have, of course, great advantages over other dealers. The first information of any good discovery in the mine reaches them, and they can go at once into the market and buy up the shares of the other adventurers at a low figure; or, on the other hand, there is a failure in some important point, and by the time the other shareholders are informed of it the trustworthy agent has slipped off his shares to some unsuspecting buyers. These things are of constant occurrence; and the men who practise them are often known, when opening their hearts to a friend over a glass of punch, to boast of the ingenuity with which they manage such delicate transactions.

Now, the ordinary chances of mining are quite enough to encounter, without having your own agent pitted against you in the share market; and that, too, with advantages on his side which place you at a fearful odds. Accordingly the mines which are subject to this evil are getting into disrepute. No reports, however favourable, give them any buoyancy in the market; they are all water-logged. On running over the list of mines in your last page, it is easy to name the concerns that are in this plight. It might be well if they were weeded out of the lists of "Dividend" and "Progressive" mines, and placed in a list by themselves, headed "Jobbers' Mines." There could be no fair objection to this; and you, Sir, would do a great service to the public by erecting such a beacon for their guidance.

The mode in which the objection is commonly met is, by asking whether a mine agent is never to buy or sell a share? I answer that I would not prohibit an agent from occasionally buying or selling, although the seidomer the better. But it is perfectly easy to distinguish between a steady, respectable agent who once, now and then, may be a buyer or seller, and a man who is a regular professional trader in the shares. In Cornwall these two classes of agents would never be confounded. And what I would propose to mining companies is, that the latter should be held as wholly disqualified for any confidential post. They may be either managers or jobbers, but not both. Such men do incalculable injury to the mines under their control. Their services are fatal to their employers. Wherever, therefore, such an agent is found, let it be required of him to abstain altogether from share jobbing; and if he gives no satisfactory assurance of doing so, he should be cashiered without the slightest ceremony. A MINE ADVENTURER.

WEST FRANCES MINE.

SIR,—At a period like the present, when economy is urged upon the attention of every person, or committee of persons, with whom is deposited the control or management of mining affairs, it is an incumbent duty to limit the expenses, by curtailing, not merely men's wages, but every superfluous expense. In this mine, the number of men working underground is 27, and over these there are three agents and a purser, receiving in all 23*l.* 2*s.* per month. The following particulars make up that sum:—The purser, Mr. Pike, 4*l.* 4*s.*; Capt. Chas. Thomas, manager, 2*l.* 2*s.*; Capt. J. Mayne, agent, 8*l.* 8*s.*; Capt. Tippet, agent, 8*l.* 8*s.* = 23*l.* 2*s.*

Now, it will be apparent to anyone the least conversant with mining affairs that four agents are too many for so small a mine: one resident agent is amply sufficient for all the work, and much more than is done in it. There must be a purser, of course, and it is not amiss for Capt. C. Thomas to attend as a supervisor at two guineas per month; but how came it to pass that two agents are placed there? Capt. Mayne did all the work well, and does it still. I would have the adventurers enquire how Mr. Tippett came there? What his duties are, and how he performs them? It is said to be an instance of nepotism, he being a nephew to Mr. James Harvey, the chief adventurer—*Camborne, Dec. 7.* AN AGENT.

PORT PHILLIP AND COLONIAL GOLD MINING COMPANY.

SIR,—The Port Phillip shareholders have lately been favoured, *mirabile dictu*, with two rather long extracts from the despatches of our resident director at Melbourne. It is evident, therefore, that our London directors think matters are somewhat improving—to use a stereotyped expression of the Chairman, "we are turning the corner." Never, I believe, was there a greater fallacy. Our directors have so frequently cried "Peace, peace," when there was no peace—have so often kept the word of promise to our ears, and broken it to our hope—have so long mystified and mismanaged matters at home—that the shareholders may well entertain a fixed opinion that no good thing can come of the present management; and the only chance I, for one, now see of the re-establishment of our affairs, is at once to recall the present managing director (who never would have been appointed but for the nepotism of the Chairman), and replace him by Mr. Evan Hopkins, of whose talents, energy, and integrity, the great body of shareholders, I firmly believe, entertain a high opinion. Had Mr. Hopkins, indeed, remained in our service, and been properly supported by the board, our position as a company would have been a far different one, and our shares would not, as now, be a drug on the Stock Exchange.

But let us for a moment analyse these quasi-favourable accounts, and see what they really amount to. My fellow-shareholders will recollect that, in your Journal of Nov. 21, I gave an extract from some despatches of the resident director, laid before the shareholders in 1855. He there tells us that a sample of tin ore which he brought down to Melbourne (I think from the Ovens) gave, upon assay, 96 ozs. 2 dwts. of gold per ton. That ore, however, he did not then consider to be worth working, but he said it would give some idea of the value of the ore when we got to the main deposit, which they expected to do very shortly. The main deposit, of course, turned out, as regards the shareholders' pockets, "all bosh;" and yet we are now told that, at Clunes, it is profitable for a Clunes company to extract, and for the Port Phillip Company to crush and stamp quartz, the average yield of which is 1¾ oz. per ton. The profit of this kind of work to the Port Phillip Company I disbelieve altogether: it is just as true as the comparison made in the report of the directors, laid before the shareholders at the last ordinary meeting, between Brazilian pyrites and Australian quartz—the trickery of which comparison I then so thoroughly exposed. Next month, however, our ordinary annual meeting ought to be, and shall be, held; and the shareholders may expect that, up to that period, all further accounts of the quartz crushing that they are permitted to see will be *couleur de rose*—but if we are silly enough, after that meeting, to allow the two promoters of our company and the resident director to continue members of the board, then we shall find, in order to excuse the non-payment of a dividend, &c., that some of the machinery has broken down—that the stamps are out of order—or the Chilian mill has stopped.

It was in a similar way that the Mariquita and New Granada shareholders were bamboozled in 1854, after that famous, or rather infamous, "Purima purchase." Then, forsooth, they were told that the estimated value of the ores in sight was £875,000; that a few barrowfuls of stuff had produced 4 lbs. of gold; that the Purima mines were the universal talk of the country, and deserved everything* that was said of them, &c. The antidote to all this, however, soon came: if one mail brought a flaming account of the mining prospects at this fabled El Dorado, the succeeding mail was sure to bring an account of a "derrumbo," or disruption, in the "acequia," or watercourse, which had stopped everything;" and these "derrumbos" were at last so frequent, that the word itself became a laughing stock among the shareholders. When the "derrumbo dodge" was fairly worked out, it was discovered that the productiveness of the quartz was ditto; for we were then told that the "mineral was

* This in one sense was true, though not in the directors' sense. After the insane purchase into which we were ensnared, the native miners of the province of Antioquia called the Purima Hill, in derision, "La loma mas cara en todo el mondo" (the most costly pasture hill in the whole world).

not so rich as at first expected;" and now, A.D. 1857, the directors in their last report confess that the Purima is the "sore spot" in the company's concerns.

Now, I trust these experiences will not be lost upon us at the Port Phillip ordinary general meeting in January next; because, if we then neglect to set our company in order, the Court of Chancery may be pleased, upon a petition from Messrs. Surface, Snap, and Gammon, to relieve us altogether from that duty. Let us take warning from the fate of the holders of Mexican and South American shares, and let us recollect, if we remain stupidly passive, what is their lot to-day may be our lot to-morrow.

Charles-street, St. James's, Dec. 8. CHRIS. RICHARDSON.

THE MEXICAN AND SOUTH AMERICAN COMPANY.

SIR,—As it appears, from your Journal of last week, that an important section of the holders of shares in the above company are strongly opposed to the selection of an official manager being left to the petitioning directors and their party. It may, perhaps, not prove altogether profitless to them, nor uninstructive to the public, if I give a brief analysis of Mr. Alison's pamphlet, written in reply to the charges brought against him by the aforesaid directors.

Mr. R. E. Alison's case was substantially this—That, in 1847, he entered into an agreement with the Mexican and South American Company to work on its behalf, in Chili, "Napier's patent for smelting ores:" and that the terms of his contract, as ultimately settled, were an annual salary, with one-eighth of the profits made at Herradura, and one-fifth of the profits of the Caldera Works. Mr. Alison appears fairly to have performed his part of the contract. In the face of great difficulties he caused to be erected, in a short time after his arrival, the first-named smelting establishment, but could not at once commence operations, because neither coals nor materials were sent out until 15 months after he reached Chili. (See pamphlet, page 5.) The make of copper, however, when he did begin, was so successful, that the shares rose to 7*l.* 10*s.* each in 1851, having been as low as 10*s.* per share in 1848. The produce of copper, too, rose from 1740 tons in 1853 to nearly 3000 tons in 1855 (see p. 7); and Mr. Alison affirms that the affairs of the Mexican and South American Company would have gone on prosperously, had not the conduct of the London board towards him compelled him to resign, and to commence a suit in a Chilian court against Mr. Barnes, the company's manager in Chili. That suit Mr. Alison gained in the inferior court, and, upon an appeal to the supreme court, the judgment of the court below was confirmed.

Mr. Alison adds, that it was a part of the agreement that the accounts between him and the London board should be settled annually; that he fulfilled his part by sending home every January the balance-sheets and annual reports; yet that the directors kept back, from him every account, even to the sale of copper regulus, for the space of five years (see page 6); and that, when the accounts were at last sent to him every account sale was found to be wrong; and that even the amended accounts sent out contained items with which he was thunderstruck, and he instances an item of nearly 4000*l.* paid to the Spitty Company, in 1853, for our patent taken out by my firm in Chili in April, 1847, nearly 12 months before the Spitty Company was heard of (see page 7). And what answer did the Mexican and South American Board give to the specific charges thus printed and published by Mr. Alison? They *published* no answer; but, according to the report, in the *Mining Journal* of March 7 last, of the proceedings at the last ordinary general meeting of the Mexican and South American Company, the then presiding chairman (Mr. H. W. Schneider), in reply to a question asked about Mr. Alison's pamphlet, said—"That a full and complete answer had been given to it, but that it was so long that the directors had not published it: however, it was open for inspection by any shareholder"—a style of reasoning very similar to that of the celebrated Martinus Scriblerus:

"My wound is great, because it is so small:
It would be greater were it none at all."

Charles-street, St. James's, Dec. 8. CHRIS. RICHARDSON.

P.S. The section of the 19 and 20 Vict., cap. 47, quoted by me last week, was the 33d, and not the 39th.

VENTILATION OF COAL MINES.

In our last Journal we briefly alluded to Mr. Wales's lecture upon the Ventilation of Coal Mines, and now propose giving the chief points which were brought forward. The ventilation of coal mines has not received a very great share of attention until within the last half century, and even during the greater part of that period few have endeavoured to improve the underground operations and modes of carrying out safe and efficient systems of management and security. Within the last few years, however, many improvements have been carried out, and many suggestions made. The Government enquiries, &c., all tend to show that great anxiety has been felt to give success to those whose object has been to improve the state of mining and to lessen the mortality among miners. But it is to be regretted that with respect to the practical usefulness of the various mechanical appliances for this purpose, no small degree of misunderstanding still exists. We are aware that the furnace is the most effective, steady, and simple cause of producing good ventilation through a mine, but the greatest possible importance should be attached to the mode of applying it. However, the mine and the necessary shafts being really the sole requirement with regard to ventilation is comprised in quantity and distribution. These two essentials are of great importance, whether considered separately or collectively, and it is highly necessary that they be united to attain a good current of air upon the working face, and its proper distribution in each district. The best way to secure quantity was to put in a good-sized furnace, and provide airways of a size proportionate to the amount of ventilation required. It is not the mere possession of ventilating power that insures good ventilation; we must have good airways, intakes, and returns. After having obtained our quantity of air, the next important requisite is its proper distribution, or splitting as it is technically termed. The great objects attempted to be carried out by splitting the air is to lessen the resistance in passing through the mine—to carry as much as possible the fresh air into the working faces—and to lessen the number of separation doors, and by this means reducing the liability to accident, arising from doors being left open or damaged, either wilfully or by accident. The splitting of air is of paramount importance, and under this head it is especially requisite that great care should be exercised in the application of our regulators. It was under this head that he found the defect of Mr. Hopton's plan of ventilation. A few months since he gave a brief outline of the different systems of ventilation to a few gentlemen, and during the course of his remarks referred to an improved system of ventilation published by Mr. Hopton, of Wakefield. He stated that his system would not bear a practical test, because "two currents of air of unequal length would not pass through one and the same regulators in equal quantities," and he trusted he should prove it not only to their satisfaction generally, but also to that of Mr. Hopton. Had there been any provision whatever for the defect which he found, he should at once have seen that Mr. Hopton had not overlooked the most important features of his plan—that of dividing the air into separate districts, in a proper, safe, and practical manner. Had this been attended to, then his assertion would have been altogether uncalled for, and unfounded in every respect.

He was glad to see that Mr. Hopton was one of those desirous of improving the mode of ventilating mines, and must acknowledge that his attempts, so far, are to a certain extent a step in the right direction. He sincerely hoped that he would be encouraged to go on, and that he will more than ever be determined to bring forward improvements which may benefit the mining population at large, and thus extend his fame as a practical pitman and manager. He concluded by describing the responsibility which attached to the several officers of the mine, and then explained a number of diagrams illustrating the various systems at present in use for ventilating collieries. Mr. Hopton admitted, after explanations from Mr. Wales, that the air would not travel as delineated on his plan, unless the regulators were arranged as proposed by Mr. Wales, who would not, however, recommend the plan even with the improvements, as the currents of air would be so much diminished, owing to the great number of regulators that would necessarily be required.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Your readers will be aware that a controversy between me and Mr. Wales has been carried on for some time, respecting the ventilation of coal mines. I was invited by Mr. Wales to attend a public lecture and discussion in the National School-room, at Hetton-le-Hole, on the 2d inst., "On the Principles of Ventilation," which invitation I accepted. The Rev. J. S. Nichol, Rector of Hetton, kindly consented to take the chair, and having opened the meeting with some appropriate remarks, called upon Mr. Wales to address the meeting, who made a few remarks as to the cause of the meeting being called, &c., and then deputed Mr. W. R. Hopper to read the paper which he (Mr. Wales) had prepared for the occasion. After this, Mr. Nichol wished to know if I (W. Hopton) were in the meeting, and if so, to come upon the platform; to which I answered in the affirmative, when I was kindly received with loud cheers. I beg to say, I had previously prepared nearly fifty questions to propound to Mr. Wales, but finding by Mr. Wales's remarks in his paper, and what was said by him at the commencement of the meeting, that his views in reference to ventilation, &c., so coincided with mine, that I at once abandoned my contemplated questions. I saw there was only one point to settle between us,—the regulator left out of the sett, or plan, to compel the air around the bord-gates. On my plan No. 2, it will be seen a sett and bord-gate is each separately ventilated. The sett is the nearest gateway for the air to traverse to the up-cast shaft; and as air in a mine will always (as I have often before stated) take, or return to the up-cast around the nearest gateway—that is, if the same be allowed, and no regulator fixed in the nearest gateway to compel part of the air around the longer distance; therefore, the reader will clearly see if 15,000 cubic feet of air were allowed for the two divisions—that is, the sett and the bord-gate—for the sett to have 10,000 feet and the bord-gate 5000 feet, if a regulator were not fixed in the sett to compel the 5000 feet of air around the bord-gate, the sett being the nearest gateway for the same, all the 15,000 feet of air would pass around the sett, and leave the bord-gate destitute of air.

I have stated in my explanatory tract that air will—that is, if allowed—return back the nearest way to the up-cast shaft; and the arrows on the plan point the way the air should go around the bord-gate, after the regulator is fixed in the sett to compel the air to traverse around the bord-gate. I have left the regulator for the manager to fix, but Mr. Wales has fixed the same for the manager, for which I thank him, as I see it would have been better to have fixed it for the manager; and I am very sorry to say, as the plan is without the regulator, it will not, as he states, bear a practical test without the regulator. I am, however, glad to find that Mr. Wales is anxious to better the condition of the miner, and to prevent loss of life. I was glad to meet him on the 2d inst. I found in him much practical knowledge in reference to ventilating mines, &c., and as the lecture and diagrams are to be published, I have no doubt but they will be the means of enlightening many who do not properly understand the right mode of ventilating mines; for it is my opinion that he (Mr. Wales) is second to no one in reference to his practical knowledge of ventilation. I hope he will yet go on improving the mode of ventilation, and if not sufficiently recompensed for the same, there is a day when every one will receive their due reward for the good they have done here.

Mr. M. Seymour also addressed the meeting, and gave some very excellent advice to the mining public, which showed clearly enough that he had had much practical knowledge in mines. The Rev. J. S. Nichol was extremely courteous, and, in my opinion, was a proper person for the place he occupied at the meeting.

In conclusion, I beg to thank all who attended the meeting, as I was very kindly received by them; hoping that our meeting may stimulate each and all to study the safety of the miner and to prevent loss of life.—W. HOPTON: *Castleford, Dec.* 8.

ANGLESEA COAL.—A short time since, there was tried at the Beaumaris Gasworks, some Anglesea coal for gas purposes. It has been found infinitely superior to King (Orrel) coal, and equal to the Lancashire Cannel. When compared with the Newcastle coal, its yield of gas is fully one-third more. The price of Lancashire Cannel at the Beaumaris Works is 21*s.* 6*d.*, whilst the price of the Anglesea coal is 16*s.*—*North Wales Chronicle.*

MADAME TUSSAUD'S EXHIBITION.—A portrait of Nena Sahib has just been completed, and placed in the above-named exhibition. It represents him in the usual dress of a Hindoo of rank, smoking his hookah. The likeness is considered to be very good.

Meetings of Mining Companies.

VALE OF TOWY MINING COMPANY.

A general meeting of proprietors was held at the offices of the company, Crown-court, yesterday, Mr. THOMAS FIELD in the chair.

The SECRETARY read the notice convening the meeting, and a statement of accounts, from which the subjoined is condensed:—

Balance last audit	£970	6	5			
Ore sold	2181	18	1=	£3152	4	6
Mine cost, July, Aug., and Sept.	£1356	6	1			
Royalties	175	13	0			
Sundries	85	18	2			
Merchants' bills	490	6	8=	2067	3	11
Balance in favour of adventurers				£1085	0	7

The CHAIRMAN observed that the nett profit for the quarter was 114*l.* 14*s.* 2*d.*, notwithstanding they had expended between 250*l.* and 300*l.* in new boilers, fittings, &c., and had to contend with the fall in the price of lead. They never had a brighter prospect; and the most gratifying part of the business of the day was the report about to be read, showing a great improvement since the last weekly report.

The following report was then read:—

Dec. 10.—Since the last general meeting we have sunk Clay's engine-shaft 4 fms. 4 ft. 6 in. to the 60, driven a cross-cut east about 7 ft., and cut the lode, which is about 4 ft. wide at the north and 3½ ft. at the south end; it is a very kindly-looking lode, composed of barytes and killas, and yielding from 4 to 5 cwts. of lead per fm. From present appearances we think the north end will improve very shortly. The 50 has been driven north from said shaft 13 fms. 6 in. through a lode varying from 3½ to 5 ft. in width, and will yield 8 cwts. of lead per fm., exclusive of the improvement which has taken place during the past month. We have, in the past month, communicated this end to No. 3 winse; in this driving the lode is from 4 to 8 ft. wide, and will yield from 15 to 20 cwts. of lead per fm.; the lode in the present end is 4 ft. wide, yielding 1 ton of lead per fathom. We have about 23 fms. to drive to reach Bonville's shaft, where the lode is 4 ft. wide, and will yield 1 ton of lead per fm. Bonville's shaft has been sunk 9 fms. below the 40. The 50 has been driven south of Clay's engine-shaft 28 fms. 4 ft. 6 in. through a lode from 4 to 6 ft. in width, yielding from 5 to 10 cwts. of lead per fm.; the lode in the present end is 8 feet wide, producing 5 cwts. of lead per fm. The 40, north of Bonville's shaft, has been driven 5 fms. 2 ft. 6 in. through a lode about 4 ft. wide, yielding from 5 to 6 cwts. of lead per fm.; the lode in the present end is 4 ft. wide, yielding 5 cwts. of lead per fm.; this level has been driven south of Field's shaft 18 fms. 2 ft. 6 in. through a lode from 2½ to 3 ft. wide, the last 12 fms. or 15 fms. will yield from 7 to 10 cwts. of lead per fm.; the lode in the present end is 2 ft. wide, yielding 7 cwts. of lead per fm. We have sunk Field's shaft from the 40 to the 50, cased and bed planked complete; in sinking this shaft we have gone through a lode from 4 to 5 ft. wide, a very fine looking lode, more particularly at the bottom, being 7 ft. wide, and will yield from 10 to 12 cwts. of lead per fm. The 30, south of Field's shaft, has been driven 5 fms. 3 ft.; the lode at times gave good indications for lead, and judging from the appearance of the lode in the 40, we fully expect to meet with something remunerative; at present it is suspended until a more favourable opportunity. The 10, north of Bonville's shaft, has been driven 8 fathoms 4 feet through a lode from 1½ to 4 feet wide, yielding from 3 to 5 cwts. of lead per fathom; having got near what is called shingle, or black gravel, the lode being poor we have suspended it, but have left good tribute ground in the back, which is being worked at 3*l.* per ton of lead, and the men making good wages. We have at present 12 pitches working by 30 men, at tributes varying from 40*s.* to 90*s.* per ton of lead. The pitches throughout the north part of the mine are looking well; the south is yielding fair quantities of lead. We have removed the old boiler from the steam-whim, and replaced it with a new one. We have about 24 tons of lead dressed and undressed at surface, and calculate to sample, on the 26th inst., about 25 tons. The mine is looking far better than it did six months since. There are 143 persons employed on the mine.—S. HARPER; T. HARVEY.

The CHAIRMAN considered there was every hope that, at the next meeting, they might look forward to a dividend. They had taken every precaution to reduce the expenditure to meet the fall in the price of lead.

Mr. THOMAS KING considered that it was the great outlay they had been compelled to make that prevented a dividend upon the present occasion, but he considered they might look forward with confidence for a dividend at the next meeting.

The report and accounts were then unanimously adopted.

The CHAIRMAN said they might fairly look forward to 100 tons of lead per month for six months, and they were sinking the shaft much more rapidly than hitherto done. He (the Chairman) considered they never met under more cheering circumstances than the present, and he might remark that since the last meeting Mr. Mitchell and himself went down to the mine, and came away with the conviction that the agents were using their best exertions for the interest of the shareholders, and the result had fully borne out their views.

The proceedings then terminated with a cordial vote of thanks to the Chairman.

WEST CRINNIS AND REGENT UNITED MINING COMPANY.

A meeting of adventurers was held at the offices of Mr. Charles, Austinfriars, on Tuesday, Mr. W. J. PEARCE in the chair.

The CHAIRMAN read the notice convening the meeting, and the minutes of the last, which were confirmed.

Mr. SMITH next read the following reports, of the directors and Capt. Webb:—

In accordance with the rules of the company, your directors have again called you together, for the purpose of acquainting you of the progress of your affairs since the meeting in September last, and in doing so they would observe that the reason why this meeting was not convened earlier is, that at the proper time for holding it your directors did not consider the business of the company rendered it necessary to summons you together. The principal events relating to the company which have transpired since the last meeting are briefly enumerated as follows:—

SHARE ACCOUNT.—Respecting this department, they have to inform you that 437 shares have been decreed for sale, and have been sold by auction, by order of the Vice-Warden of the Stannaries Courts; they were bought in for the company. The object your directors had in view in taking this step is very apparent, as in the event of the mines proving valuable (as they sincerely believe they will) the company would, of course, benefit by their disposal. Since the last meeting, notices of relinquishment have been received from parties holding in the aggregate 12 shares; some have paid all calls to the present time, while others have not. The former your directors have accepted, the latter they have refused. The call made at the last meeting of the company, your directors regret to state, has not been so liberally responded to as they could wish. Nearly one-half of the second instalment, and about one-third of the first, besides the arrears of the 2*l.* call, remain unpaid. They believe that the recent severe monetary depression has exercised its baneful influence in preventing shareholders paying their calls, who are otherwise willing to do so; but your directors hope that, as the panic has somewhat subsided, the means where with to discharge the heavy liabilities of the company, as well as the current expenditure at the mines, will be promptly subscribed. The authority given at the last meeting to institute legal proceedings against defaulters has been exercised in such a manner generally as to enforce payment of the calls due. Your directors again ask your permission to adopt similar proceedings against all shareholders who remain in arrear of the first instalment of the 1*l.* call, or any previous calls, after 14 days from the date of this meeting.

THE MINES.—The advance made in the draining your directors consider satisfactory, and it affords them much pleasure to inform you that about a month ago Capt. Webb submitted to them a proposal for draining Regent Mine to the bottom. The plan he proposed would considerably lessen the expense, as well as being equally as effectual and expeditious as the one originally suggested. With this assurance your directors readily acquiesced in the suggestions he offered, and empowered him to forthwith carry out the plan he proposed. They trust their proceedings herein will meet with your approval; they beg to assure you that, although the present expenditure at the mines is very considerable, due regard is paid to economy. By Captain Webb's report, it appears there are numerous tribute pitches set in the mine, and by the time the bottom is reached the number will be increased. Capt. Webb's report, annexed hereto, will furnish you with information relating to the present operations and appearances at the mines.

FINANCES.—The total amount of the receipts since the date of the accounts presented to you at the meeting in Sept. last is 349*l.* 12*s.* 8*d.*, and consists of 264*l.* 10*s.* on account of 2*l.* call, 37*l.* on account of calls on the allotted relinquished shares, 17*l.* on account of the first instalment of the 1*l.* call, and cash for dishonoured bill and interest, 31*l.* 2*s.* 8*d.* The disbursements have been as follows:—37*7l.* 14*s.* 1*d.* for labour costs, 10*l.* on account of committee's salary, 5*l.* on account of auditor's salary, 41*l.* 2*s.* 4*d.* for purser's salary and account, and for returned bill, 37*l.* 17*s.*, amounting in all to 461*l.* 15*s.* 5*d.*

LIABILITIES AND ASSETS.—This statement shows the company to owe nearly 300*0l.*; while, on the other hand, the assets, comprising ore sold and unpaid calls, amount to a sum adequate to discharge by far the greater portion of the company's liabilities. This clearly demonstrates the importance of shareholders punctually paying their calls. If this rule were invariably observed, the position of this company at the present moment would be much better than it is.

In pursuance of rule 5, Messrs. Parrish and Peirce retire by rotation from the management of your affairs, but, being eligible, offer themselves for re-election.

Mr. Lewis having this day resigned the pursership of the company, your directors accepted it, and they have appointed Mr. Wm. Charles, of 27, Austinfriars, City, in his stead. Mr. Charles will forthwith enter upon the duties of the office. The late purser will complete his accounts to the end of the present year, when they will be audited, and circulated amongst the shareholders; and for this purpose your directors have allowed him a reasonable time to make up his accounts.

It is necessary that a resolution should be passed, approving of and confirming the acts of your directors since the last meeting.

Your directors, in concluding their report, earnestly call upon you to support them in their exertions to make the mine remunerative; they are fully persuaded of their mineral richness, when fully developed according to Capt. Webb's recommendations.

Dec. 7.—My report for the general meeting cannot vary much from my late weekly report. During the last two or three months our cutwork operations have been chiefly in clearing the shafts and levels to the 40; also in damming back the north water, which has been an important operation; but I am happy to say that it is a complete piece of workmanship. This north water has risen 30 fms., and one stroke per minute with the engine will keep off all the water in the mine. We have now sufficient power with the flat-rods to drain to the 90, which work we shall commence immediately, and shall speedily throw the mine open extensively. At and above the 40 we have several tribute pitches at work, getting a pretty deal of copper. I see we shall continue to do so for a long time, but the principal objects are below the 40. First, as Bell's and Kemp's lodes have not been intersected below the 40, we shall commence to cross-cut for the same immediately, then drain to the 60, also in the 80. Second, we shall extend liberally east and west on Regent's lodes. Third, the intersection of the lodes at about the 100. Our next sampling will be in about four weeks, but I cannot say the quantity as yet. The machinery is in an excellent state of working, and we are now in a good position for carrying out the above objects, which I believe will be attended with profitable results.

The CHAIRMAN, in moving the adoption of the reports, referred to the number of calls in arrear, which both crippled their exertions and entailed expense, in the shape of interest on raising money. By Capt. Webb's report, some alteration had been made in draining the mine, the water being stopped from Great Crinnis, and the engine was now of sufficient power to drain the mine to the bottom.

Mr. MORRS wished to know what time Mr. Lewis would require to make up his accounts!—The CHAIRMAN considered that question had better be left in the hands of the committee.—The reports were then unanimously adopted.

Mr. LEWIS stated that he should like his accounts made up to the end of the year, when they could be audited and circulated amongst the shareholders.

The CHAIRMAN said the next business was the appointment of a purser. Mr. Lewis had resigned, and the committee had accepted his resignation. The committee had appointed Mr. Charles as his successor, and wished the meeting to confirm the appointment.—A resolution was then unanimously passed, confirming the election of Mr. Charles as secretary and purser. A resolution was also passed, that 181 relinquished shares be re-allotted to the party who had paid the whole of the calls.

After a lengthened and personal discussion, Mr. Parker was elected a member of the committee in the room of Mr. Parrish, and the Chairman re-elected, with a vote of thanks for his past services.

Mr. MORRS moved a resolution to the effect, that the meeting approves and confirms the instructions given by the committee to Capt. Webb for the more economical working of the mines.

Mr. CHARLES, in seconding the motion, said they had drained to the 40, and the water was coming in from the 40 cross-cut north, when Captain Webb cut out the ground and put in a dam to keep it out, and it was done so perfect that, instead of requiring large lifts, making three or four strokes per minute, one per minute was sufficient, and the keeping the water back would effect a saving of 30*l.* or 40*l.* per month, and they would be able to drain the mine to the bottom without any great strain on the engine, as by the alteration, instead of having large pumps, very small ones would do. He hoped soon to see it drained to the 90; but the best evidence that they had a valuable property was the returns of ore that had been made.

Mr. PARKER said he had a report from a gentleman he had employed to inspect the mine, and which was of a highly satisfactory character. The resolution was then passed confirming the instructions given to Capt. Webb.

Votes of thanks to the Chairman and Capt. Webb terminated the proceedings.

EAST INDIA COAL COMPANY.

The second annual meeting of proprietors was held at the offices of the company, Gresham House, Old Broad-street, on Monday,

Sir T. Herbert Maddock in the chair.

Mr. H. HAYMEN (the secretary) read the notice convening the meeting, and the following report of the directors:—

The directors have now the pleasure of submitting the accounts prepared from June 30, 1856, to June 30, 1857, in India, and from Nov. 7, 1856, to Nov. 7, 1857, in England, duly certified by the auditors of the company.

These accounts, they trust, will be satisfactory, and the directors have pleasure in informing shareholders that though the accounts do not show any profit, yet that by this time profit equal to about 3 per cent. on the capital has been earned; but as, in conformity with the deed, it is necessary that such profit should be certified by the auditors, and the principal part having been earned since June 30 (the date on which the accounts were closed in India), your directors are compelled to postpone any dividend at present; but by looking at the assets and liabilities, shareholders will be able to at once perceive that the profit has been earned.

The whole of the coal contracted for with the Government under their first contract has been dispatched to the various stations, and coal is now being dispatched on account of a second contract with the Government, extending over two years, which contract must prove a source of great profit to the company.

The directors had hoped long ere this to have been able to announce to the shareholders that the expensive machinery sent from this country had been got into working order; but delays have occurred, the greater part of which could not have been provided against, caused principally by the enormous weight and power of the machinery sent out; such large and powerful engines never having been sent to India for colliery purposes before. The last advices received from the company's engineer stated that in two days the Toposi engine would be ready for work.

You will observe by the accounts before you, that a large amount is still due upon the call of 2*l.* per share, made by the directors on June 1 last; a considerable portion of this sum is owing by parties resident in India, and in several cases it has been impossible to serve the usual notices, in consequence of the shareholders being in the most disturbed part of the country. Looking to this fact, together with the extraordinary financial crisis which has just occurred in this city, and believing under such circumstances that the shareholders will be more disposed to sympathise with than exact penalties from their copartners in this undertaking, the directors have not exercised the power they possess of declaring forfeited the shares still in arrears, and they have extended the period of payment as follows:—to Dec. 31 next, for shareholders in England; and to the last day of February, 1858, for shareholders resident in India; such latter class of shareholders to pay their calls either to the agents in Calcutta, on or before the last day of February, 1858, or to the company's bankers in London, on or before March 30.

The directors who retire, in accordance with the deed, are Sir Thomas Herbert Maddock, Lewis D. B. Mackay, Esq., and his Highness Meer Jaffur Alee, the whole of whom being eligible, offer themselves as candidates for re-election.

The following gentlemen have also intimated their intention of offering themselves as directors:—John Gregory, Esq. (of Messrs. White and Co., Bankers, Haymarket); W. S. Austin, Esq., barrister, Reform Club, Pall Mall; G. Armitage, Esq., Clement's-lane, Lombard-street; and F. Brown, Esq., Basinghall-street.

The auditors, Messrs. J. Noble and H. C. Read, have also intimated their intention of offering themselves as candidates for re-election, and W. H. Dawson, Esq., has intimated that it is his intention to offer himself as a candidate.

In conclusion, your directors can only state that by this time next year they have not the slightest doubt but that the company will be in a position to pay a good dividend.

The accounts of assets and liabilities showed a balance in favour of the company of 22,255*l.* 15*s.* 10*d.* From this must be deducted the expenditure, including the cost of conveying the coal, from June 30 to end of October, the accounts for which are not to hand. The probable amount may be set down as 4000*l.*

Mr. HAYMEN, in answer to a question, said the accounts were made out in accordance with the deed, were perfectly correct, and duly audited.

Mr. BURGE considered that the report and accounts ought to be in hand a short time before the meeting, to give the shareholders an opportunity of examining them.

The CHAIRMAN replied that they were anxious to give the assets and liabilities to the latest date, and the last mail had only arrived a few days since. It was satisfactory to state that, as soon as the engines were at work they would be enabled to raise three or four times the quantity of coal than at present, and they had an abundance of customers.

A SHAREHOLDER wished to know the total cost per ton of raising the coal, and the price realised?

Mr. HAYMEN replied that the total cost of raising, including transit to Calcutta, was 14*s.* per ton, and they got from the Government 26*s.*

Mr. AUSTIN having characterised the report as meagre and unsatisfactory, moved as an amendment to its adoption that it be rejected. Eight proprietors, holding 213 shares, voted for the amendment, and 12, holding 886 shares, against. The report and accounts were consequently carried by a majority of 174.

After a very lengthened discussion, Messrs. J. Gregory, W. S. Austin, G. Armitage, and his Highness Meer Jaffur Alee, were elected directors by a considerable majority. Mr. Noble and Mr. Dawson were elected auditors.

A vote of thanks to the Chairman terminated the proceedings.

BOMBAY, BARODA, AND CENTRAL INDIA RAILWAY.

The half-yearly meeting of proprietors was held at the offices of the company, Liverpool-street, on Monday,—Colonel P. T. FRENCH, M.P., in the chair.

Mr. KENNEDY (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed. The report, which was taken as read, stated that the East India Company, by their letter of guarantee, dated Nov. 2, had granted to the company the concession of the 183 miles from Surat to Bombay. The vast importance of the junction of Surat and the cotton-growing districts with Bombay will be better appreciated from the fact that Bombay is the mart from which the Chinese Empire chiefly derives its supply of cotton.

The statement of accounts, ending July 31 in India and Oct. 31 in England, showed—Balance Hon. East India Company, 168,005*l.* 11*s.* 10*d.*; balance at bankers, and advances to engineers to account, 31,917*l.* 16*s.* 5*d.*

The CHAIRMAN, in moving the adoption of the report, congratulated the shareholders on the fact that, since the last meeting, the Government had authorised them to construct the line from Surat to Bombay. He had stated on a former occasion that their line began nowhere and ended nowhere; but now it would extend from Ahmedabad, passing through a district known as the garden of Western India, to Bombay. The country, so far as roads were concerned, was in a state of nature. In the whole, he thought their affairs were now in a satisfactory state. The first section of the line would be opened in May or June next. The works were progressing favourably, and he hoped by that time next year to be able to report something about the traffic returns on the line.—Colonel HOLLAND seconded the motion.

Mr. WILDE said it appeared to him that, as their line would pass at right angles to streams of traffic, it would intercept a great deal of it before it reached the coast. He wished to know whether anything had been decided with regard to having a separate station at Bombay?

The CHAIRMAN said no mention had been made by the hon. Court; but it would, no doubt, be left to the local authorities: he expected they would have a separate station.—The Chairman, in reply to further questions, stated that the new shares would be issued on the first favourable opportunity; the first call would amount to 25 per cent. of the whole, and the time had been extended to March 18. They had contracted for a large amount of permanent way, and the balance in hand was being gradually reduced; therefore, at the end of five or six months it would be necessary to have more money in hand, in order to proceed vigorously with the works.

Lieut.-Colonel KENNEDY (the consulting engineer) entered into a very full and interesting explanation of the progress of the works. In the month of July last about one-eleventh part of the total amount of earthworks between Surat and Ahmedabad was executed by their own staff. By means of improvements in ironwork, he was enabled to dispense with a great deal of masonry, and to construct the bridges and viaducts entirely of iron. They had sent out many of the minor bridges. The Nerbudda viaduct was in the course of construction near London. The plan adopted was very simple; the openings were all 60 ft. in span, formed by Warren's patent girders, and the piers consisted of a number of pieces which fitted in each other, secured in the usual way, so that piers of any required height could be erected, or bridges of any length constructed, and the cost of the viaducts on his plan would not be more than 50,000*l.* or 60,000*l.* per mile. (Hear.)

The report and accounts were then unanimously adopted, and votes of thanks passed to the Chairman, directors, and officers of the company.

SALE OF MINING SHARES.—Mr. T. P. Thomas submitted for sale, by auction, at Crown-court, Threadneedle-street, several shares in dividend mines, as also some forfeited for arrears of call. There was a very good attendance of gentlemen connected with the mining interest, and much competition took place for the lots offered. The first shares submitted were 65 in East Wheal Russell, put up in thirten lots of 5 each, and realised from 3*l.* 1*s.* to 3*l.* 3*s.* per share: 50 were next submitted in lots of 10 each, the two first fetched 3*l.* 2*s.* per share, and the last 3*l.* 2*s.* 6*d.*; 116 in North Downs, 30*s.* to 30*s.* 6*d.*: 2 shares in South Frances, the reserve price being 230*l.*, failed to find a bidder: 25 Wheal Edwards, put up in lots of five each, were sold at from 7*l.* 1*s.* to 7*l.* 3*s.*: 50 Drake Walls, in lots of 10 each, the first lot fetched 28*s.*, and the remainder 27*s.* per share: 75 North Wreys, in three lots, at 2*s.*, 2*s.* 3*d.*, and 2*s.* 6*d.*: 20 Lewis in two lots, 15*s.* each: 100 Kenneggy Tin Mine were withdrawn: 40 Wheal Trebarvah, in two lots, realised 15*s.* each: 5 Trethellan, in five lots, 15*l.* each: 20 Trewetha, 10 at 18*s.*, and 10 at 17*s.* 6*d.*: 2 Wheal Margarets at 48*l.* 10*s.* each: 100 Lady Berthas, in four lots of 25 each, 17*s.* to 17*s.* 6*d.*: 50 Sortridge Consols in two lots, the reserve price being 1*l.* 17*s.* 6*d.*, were passed: 100 West Grenville, 4*s.* 6*d.* each: 5 East Alfred Consols, 2*l.* 8*s.* 6*d.*, 10 ditto 2*l.* 8*s.* 6*d*, 10 ditto 2*l.* 11*s.*: 10 shares in North Roskear, the reserved price being 24*l.*, failed to find a bidder: 100 East Rosewarnes, in six lots, were sold at 17*s.* 6*d.*: 40 additional Drake Walls were sold at from 25*s.* to 26*s.* 6*d.* The sale altogether may be considered one of the most satisfactory that has taken place for some time, notwithstanding the great reduction in the price of metals—a clear proof that those connected with mining, and who were the chief buyers, consider the present depression as only temporary.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

BEDFORD UNITED MINES.—The contest between the London and Exeter shareholders continues in all its force, the last step being the issue of a circular by the London committee, altogether refuting the charges made against them by the Exeter shareholders. It was, in the first place, asserted that there were seldom more than three shareholders present; this is refuted by an abstract from the minute-book for the last six quarterly meetings, which shows that there were never less than five present. The second charge is, that three of the four committee men are relatives. The answer is, that the arrangement of the office of the company being in the same house as that of three of the members of the committee, is a most convenient one, as they can be consulted at all times, without calling a formal committee meeting for, perhaps, a trivial matter. Their holding a considerable stake in the concern is the best guarantee that they will look after the general affairs of the company for their own personal security. Their services being gratuitous, emolument cannot be an incentive. The other charges appear to be equally refuted; and as we do not agree that low wages and economy are synonymous, we advise thorough consideration before countenancing the removal of the management from the metropolis.

GREAT WHEAL BUSY UNITED MINES.—All that has been promised by the manager (Capt. J. B. Pascoe) of these mines, and every syllable of the statements made by the committee in the prospectus at the formation of the company, as to the extent and quality of the ore ground laid open when, 30 years ago, the mine was drowned, have been verified to the letter, with the addition of the development of further and better discoveries of copper, and especially of tin. The deepest level (93 fms.) is now dry. Capt. Pascoe thus writes, on Wednesday:—"Now that the 93 is drained, we can finish the drainage in 24 hours, whenever we require it; but we must first clear down Fielding's and Offord's shafts to the 93, which we hope to accomplish in a month from this date. To say nothing of the surface work, the erection of engine-houses and the various steam-engines, stamps, and machinery, we have now cleared and secured above eight miles in shafts, levels, and winzes. We have 200 tributers at work above the 80, at prices ranging from 3s. 11d. to 13s. 4d. in 1l.; 18 pitches set in the 80, at an average tribute of 7s. 6d. in 1l. We shall have for the two months ending Jan. 31, 500 tons of copper ore, and in another month, when we have clear access to the whole of the 93, we shall be raising 500 tons of copper ore monthly, worth 2000l.; and 10 tons of tin, worth, even at present prices, 500l.; whilst our outside cost will not exceed 2000l. a month, so that we shall very soon be making profits. Our machinery being all erected and at work, and being quite new, our expenses will lessen very much. The ore in the ground already opened cannot be taken away in 50 years; in fact, it is the best mining property in the county. More has been accomplished at this mine, within the time the works have been in progress, than previously at any mine in Cornwall. Shares are at present well worth 12l. each."

"WORTH A MILLION."—One of the principal copper and tin smelters is reported to have recently said, "If I live till 1860 I shall be worth a million." Whether he said so or not, I am inclined to believe that he might truly say so. The colossal fortunes realised by the smelters in a few years only show that the adventurers in mines have not a fair price for their ores—the price being fixed by a combination between the smelting companies. If one member of one of the copper smelting companies has realised in 40 years, chiefly from this source, 1,000,000l. sterling, just think what an amount must have been realised by the companies in the aggregate! The copper smelting business must be a capital thing. No wonder that some members should purchase large estates in Devon and Cornwall. It was reported, not long since, that the principal of one of the firms had invested in two years 170,000l. in landed property; and his brother has purchased in North Devon upwards of 100,000l. worth of land; but I believe that in two or three generations it will all be scattered. Spendthrifts, no doubt, will come to scatter it. It is time that miners should find some mode of correcting this great evil of monopoly, so as to secure a fair price, at all times, for their produce. It ought to be done, but who will show the way?—AN AGENT.

BALLYMONEEN MINE (county Wicklow).—A very important discovery has been made in the 15 fm. level cross-cut north by cutting into the Great Sulphur lode, where it is found very rich for sulphur (iron pyrites) of good width. The levels east and west are being driven, and the indications very cheering. This mine will during 1858 be making regular sales of ores, and being situated in the Wicklow district, described in last week's Journal, is likely to attract attention.

WENDRON UNITED MINES are fast progressing. The new engine is at work, the shaft down to the 20, and preparations being made to put it down to the 30 forthwith. In the 20 a fine lode of tin has been cut, worth many pounds per fathom. Tinstuff is being raised from it and stamped, when we shall be able to report more accurately as to the value of the discovery. There are a great many lodes in the sett. Cross-cuts will be put out north and south to intersect the east and west lodes, and in a brief space of time important results may be anticipated from this promising little concern. The proprietary are principally Cornishmen, and present as goodly a list of shareholders as can be desired. The new count-house is nearly finished; the other out-buildings are all occupied, and quite suitable for the purposes intended.

CALVADNACK TIN MINE (Wendron).—This mine is also progressing favourably, and looking considerably better. The two new water-wheels are at work, everything appears to be in a state of activity, bespeaking a determination to work the mine efficiently.

A LARGE BUSINESS, AND SUCCESS.—The rise of some families from comparative poverty to wealth and influence is most remarkable. The late Mr. Morrison, of Fore-street, London, commenced with fourpence, and left four millions sterling! The late Mr. Williams, of Scorrier, a good man, commenced with 1000l., and now his sons have about two millions—if reports be true. Only look at the numerous streams which formed their ocean of wealth: they have gained largely by mine profits (dividends), and by dealing in shares through brokers. I heard, many years ago, that they gained 200,000l. in one year, on shares in Godolphin, Treskerby, &c. They had many mines under their management, with a good salary from each; horses and carts carrying at the mines every day, supplying materials carried over their own tramroad; quay, wharves, and a large coal and timber business at Portreath; a similar business and a foundry at Perran Wharf; a wharf, yard, &c., at Calstock, where they have a large property under the Duke of Cornwall; a yard at Devoron, another at Gwennap, another at Wheal Rose, &c.; the copper and tin smelting concerns; manganese mines in various countries; large estates in Cornwall and Devon; proprietors of the Cornish Bank, Truro, Redruth and Falmouth, and other things too numerous to mention. They commenced the copper smelting in company with the Foxes, of Falmouth, whom they have brought out, as they have done with respect to the Portreath and Perran Wharf concerns. At the first of their smelting they took in money at 5 per cent.; after a time they gave notice to all depositors that no further interest would be paid—they might have their cash if they wished. Many left their money in their hands for safe custody. Such is a brief glance at a few of the circumstances accounting for the rise of the Williams family, who can command more money than any family that now is, or ever was, in the county of Cornwall.—AN AGENT.

TREMOOR CONSOLS.—This mine, which is situate in Lanivet, owing to disagreements among the late proprietary, was some time since abandoned, but is now again in full work. The formation is clay-slate, near the edge of the granite, which is considered kindly for mineral produce. The shaft is down about 6 fms. from surface, and already there have been raised some tons of copper ore, of good quality, and it is but fair to assume that when a mine makes at such a shallow depth good results may be expected still lower. The mine can almost entirely be worked by water-power, and for some time to come no extraneous aid will be required. The late Mr. Treffry, of Place House, purchased some of the land of which this sett has a portion, the other part being on the property of the Hon. Mrs. Anna Maria Agar.

WHEAL MARGARET.—Mr. J. S. Bickford, of the firm of Bickford, Smith, and Co., the celebrated safety-fuse patentees, is a large proprietor in this mine; and it was his wish, on the resignation of the late purser, to put Mr. W. Darke, of Penzance, into the pursership. At the meeting, however, he was defeated, the manager (Capt. Treweeke) having obtained a majority for his appointment to that office; but it is satisfactory to know that no one objected to Mr. Darke on the ground of character or competence. At the next meeting, which was made special for the purpose, Mr. Bickford again tried his strength, but with the same result, Mr. Treweeke's appointment being confirmed. Being thus again defeated in his endeavour to reform the management, which his rare business ability so fully justified him in attempting, I would suggest to Mr. Bickford, that he should now attempt to discover the object of appointing a "visiting agent," and the uses to which his energies are devoted. There can be no earthly use in the expense of having a mere "fault-finder," sowing mischief, for dissatisfaction and misery to result to all concerned. To Capt. Treweeke himself it must be a source of annoyance amounting almost to persecution.—AN AGENT.

AT WHEAL ENYS (Wendron), there is a great improvement, which, if it continue, will place it in a most important position. Considerable returns have been made from time to time, and this discovery will enable the quantity of tin to be materially increased. The whole of the tin mines in the neighbourhood are looking better, and had not the price of tin lowered so much, satisfactory accounts would have been rendered by some who can now only just meet their demands.

TREGONEBRIS MINE, it is currently reported, is to resume active operations, which have for some time been suspended, owing to a dispute. It is generally considered a capital speculation.

GREAT WHEAL VOR.—It is unfortunate that such a fall in tin occurred before the adventurers reached their main object (the tin at the bottom), for a considerable loss is the result. I hear that the loss is about 2000l. per month. But the adventurers need not be out of heart, for the bottom will soon be seen, and there is plenty of tin there. After that they had better smelt their tin, unless a fair price can be obtained from the smelting companies. I advise them to reduce their expenditure by abolishing their London offices, which are really useless, and all the officers therein. The staff on the mine is good, and amply sufficient for all purposes. I am informed that the London expense is 2000l. a year—so much money thrown away! Why should Wheal Vor have a suite of offices in town more than Wheal Basset, South Frances, Wheal Buller, United Mines, &c.?—AN AGENT.

PORKELLIS UNITED MINES.—These mines have now been wrought about [illegible] years, and extensive explorations made in every direction, as may be assumed when I state the flat-rods in use extend upwards of half a mile, and the underground [illegible] many miles. The mines have from the first been remunerative, but never suf[illegible] so as to declare a dividend, though had not the late depression in the price of tin taken place they would be on the verge of, if not have attained, that distinction. Large quantities of tin have been, and are now being, returned, upwards of 130,000l. worth having been sold; and at present their produce is upwards of 20 tons per month. Late discoveries promise a still higher amount, 23 tons of tin being last month's produce; this the company would do well to retain, but we fear they will be forced to part with it under the pressure of the times; had but prices kept up, a very different result would have taken place. These works unite tin streaming with tin mining. The former has for some years been discouraged, but is now being resumed, with considerable success. This part is let on tribute, so that no loss can accrue to the adventurers in the Porkellis United. On the mine is a noble 60-in. cylinder pumping engine, of sufficient power for its great task, the mine being (like all mines in the moor) very wet. One set of flat-rods extend no less than a quarter of a mile from the engine-shaft. A capital steam whim, driving 80 heads of stamps, a winding engine of considerable power, a water-wheel for stamping the tin streamers' produce, besides several other minor water-wheels. The mine is under the management of Capt. J. Hitchins and Mr. C. Parry, names that are a sufficient guarantee for the ability displayed. This is one of the mines that may look the storm at present raging amongst the "sea of troubles" in the face, without fear. By limiting their explorations (a most undesirable step) they may reduce their expenditure to within their income, but they will mar and delay their advances toward a dividend state, which with a little encouragement and perseverance they will certainly ere long attain, the discoveries and reserves being considerable. The mines are situated at the head of Porkellis Moor, are on the same series, but parallel lodes to Wendron Consols, Wheal Ruby, Wheal Foster, Wheal Enys, Wendron United, &c., many of which have made handsome returns, though none of them have been wrought to any great depth. These mines are no more than 50 fms. from the surface. The tin is found up to the very surface, where it has been removed in some instances by the old men as deep as 12 fms.; hence the discovery of the mines. The lodes are numerous, large, and productive, some of them producing that mixture of copper in their composition which miners hold so desirable an indication for making mineral in depth. Everything but the price of tin seems to be in favour of this undertaking, the adventurers of which have all to hope, and nought to fear.

EAST RUSSELL is still improving at the 66 end, and on surface there is a fine pile of rich ore, composed of blue, red, and green carbonate of copper. Such ore has only been seen from the Burra Burra, in Australia. This mine is likely to be the next trump in this locality, and will prove Mr. Josiah Hitchins's opinion, against so many opposite reports given by so many agents.

On Monday last, our correspondent, Mr. George Henwood, received the compliment of a special entertainment by the manager and agents of the Porkellis Mines, in recognition of his services to mines and miners, through the medium of his pen. Several agents of adjoining mines were present, and the afternoon was spent in mutual good fellowship. We understand he received a similar compliment at Christopher Consols, on Wednesday. This is highly gratifying to him, and to us, to see his endeavours are appreciated in his native county.

PRINCE OF WALES MINE.—Mr. John Pitt, the Chairman of the meeting held Dec. 3 (the particulars of which appeared last week), stated that the mine had very much improved, and the aspect was more cheering than they had hitherto been able to report. They had expended during the year 751l. 6s. 11d., and there were two very important features in the adventure—one being the extraordinary width and promising appearance of the lode; and the other that the lode, which was before extremely hard, had become soft and friable, which would materially reduce the cost of working, and expedite the progress of operation. Capt. Francis Symons also reported that the flookan lode was composed of friable quartz, soft killas, and clay, with a small portion of lead and blende, showing every indication for making large deposits of lead, &c., as they go down. The engine-shaft is sunk 9 feet by 7, capable of proving the mine to any depth; and they have a crushing-engine, with dressing-floors, &c.

OKEL TOR MINES.—Messrs. John Anthony and Co., of Barbican, and Martin-street Ironworks, Plymouth, in their remarks upon the produce of these mines say that "mundic rides a good horse" is almost an axiom with the old and experienced miner. It is at least a proverb with him, and he is generally right when he quotes it. We have many instances of the truth of this miner's proverb in the great mineral districts of West Cornwall. It has, however, been looked on with suspicion by surface miners, who content themselves with a scratch on the backs. Great mundic lodes must not be treated in this way. At Okel Tor it was necessary to go deeper; by perseverance the 65 has been attained. The 50 has been driven through mundic and copper ore for several fathoms, and that end is now producing from 4 to 5 tons of rich ore per fathom. An excellent 22-in. steam-engine is in the course of erection to draw and crush the ores. In the 50, waiting to be drawn, are rocks of nearly solid copper ore. That "mundic rides a good horse" will be proved in the approaching samplings of Okel Tor Mine.

LIBERTY MINING COMPANY OF VIRGINIA.—The following we have extracted from the *Fredericksburgh (Virginia) Herald*:—"The Vaucluse Gold Mines.—A few weeks since there was deposited at the banking-house of Messrs. Slaughter, a bar of gold from the above mines which weighed 62 ozs. On Tuesday we saw another bar on deposit at the same house from the mines, which weighs 61 ozs. 11 dwts., deposited by Mr. Conquest, the manager. It is said that these mines are now self-supporting, and the hope is expressed that a brighter day is dawning on Vaucluse. Should this company be dissolved for want of a little more capital, the last, and regarded by many as the best, of the mines brought out and held by British capital in Virginia, we could not reasonably expect any more money invested in our mining district from that quarter; should, however, this company succeed, as present indications seem to justify the hope they will, and thus pay an honest dividend to the shareholders, there is little room to doubt that thousands of English pounds would be directed to this quarter, in which event many mines that are now unproductive, and lying idle, would be opened, and profitably worked. Mr. Conquest, we understand, has just returned from Europe, where he has been for the purpose of explaining matters to the shareholders, taking with him a bar of gold of the size we saw, to prove that the story of gold in this quarter of Virginia is not a myth, but a veritable fact. Mr. Conquest is anxious to work the mine on a large scale, and if the proprietors will afford him the necessary aid, he feels assured that he can make a satisfactory return for the capital invested. This is a consummation to be wished for, not only for the sake of the stockholders in England, but for our own community. The reception of Mr. Conquest at the mines, on Friday, by those employed there must have been highly gratifying to that gentleman; they met him with shouting and singing, and taking him in their arms carried him around, with every manifestation of pleasure at his return."

FOREIGN MINES.

The Fortuna Mining Company have advices from Spain to Nov. 30:—CANADA INCOSA: The 2d level is extended east of Lowndes' shaft 31 fms. 0 ft. 2 in.; the lode is split in small branches, altogether worth ⅛ ton of lead ore per fm. The lode in the 3d level, east of Kennedy's shaft, is 1 ft. wide, containing a little ore, but not enough to value. The lode in Gracia's winze is producing 1¼ ton of lead ore per fm. The lode in the 4th level, east of Fortuna winze, is 1 foot wide, worth ½ ton of lead ore per fm. The lode in Esperanza winze is at present small and poor. The lode in the 5th level, east of Purgatorio winze, is 9 in. wide, and contains a little ore, but not enough to value.—West of Taylor's Engine-shaft: The lode in the 5th level, east of Francisco winze, is composed of quartz, carbonate of lime, and lead ore, worth for the latter ½ ton per fm. The lode in the 6th level, east of El Clavel winze, is a little improved, worth 1 ton per fm. The lode in the 5th level, west of Buen Provecho winze, is 2 ft. wide, producing 1½ ton per fm. The lode in the 3d level, west of O'Shea's shaft, is producing 1½ ton of lead ore per fm. The lode in Oviedo's winze is worth ¾ ton per fm.—LOS SALIDOS: The ground in Morris's engine-shaft, sinking below the 3d level, continues without any material alteration. The lode in the 3d level, west of sump-winze, is producing 1¼ ton of lead per fm. The lode in Alvino's winze is yielding 1½ ton per fm. The lode in the 3d level, east of Pedro's winze, is worth 4 tons per fm. The lode in San Gabriel shaft is worth 1¼ ton per fm. The lode in the 2d level, east of San Gabriel shaft, is worth 1 ton per fathom; the same level, east of Cologan's winze, is poor at present.

The Linares Lead Mining Company have advices from Spain to Nov. 30. The tribute pitches throughout the mine continue fairly productive, and the surface operations are going on satisfactorily.

The Royal Santiago Mining Company have advices from Cobre to Nov. 1:—In the 32, driving west on south lode, the lode is about 1 ft. wide, composed of spar, mundic, with spots of copper ore, and letting out a great deal of water; we are thinking to suspend driving this end for the present, and cross-cut north and south. In the 32 cross-cut, driving south, we have not cut the lode as yet, but are expecting daily to do so; the men who belong to this end are now working regularly again. The 22, east of New Isabelita shaft, has improved since I wrote to you last; the lode is about 2 feet wide, producing from 2 to 3 tons of coppor ore per fm., of good quality; in the 22, driving west of New Isabelita shaft, the lode is very poor, but we expect as we get a little further west it will improve. At New Isabelita shaft, sinking below the 22, the ground is hard, and compact for sinking. In the winze sinking below the 22 the lode at present is split up into two branches, and not looking so well, at present producing ½ ton of copper ore per fm.; in the stope in back of the 22, east of New Isabelita shaft, the lode is 2 feet wide, producing 2 tons of copper ore per fm.; in the stope in back of the 22, on old lode, the lode is not looking so well as per last report, it is from 2 to 3 ft. wide, producing about 2 tons of coper ore per fm. In the 10, driving east from New Isabelita shaft, the lode is 1 foot wide, composed of spar, with occasional stones of ore; in the stopes in back of the 10, east of New Isabelita shaft, the lode is about 1½ ft. wide, yielding 2 tons of copper ore per fm.; in the stopes in back of the 10, west of New Isabelita shaft, on new lode, the lode is 1½ ft. wide, producing 1½ ton of ore per fm. Our raisings for the past month were—Dust, 57 tons; stone, 8; ragging, 4; and precipitate, 4 tons=73 tons.

The Wildberg Mining Company have advices from Captain Walls, to Dec. 5:—During the past month we have taken out of the mine, dressed and sampled, to the smelting works, 111 tons 14 cwts. of silver-lead ore; I will send you the produce in my next, having been too busy this week to make the assay. Driving east from the bottom of No. 1 sink, in Umbruck's level, we have again communicated to some old workings, the bottom of which is some 2 or 3 fathoms below our present driving; this is no doubt carried down on a rich shoot of ore, but we shall be unable to reach it before the water is drained by the sinking of Michael's shaft, which will take about three months.

The Strathalbyn Mining and Smelting Company have advices from Capt. Prisk, from which the following are extracts:—Aug. 9: In handing you my report of the past month, I beg to say that we are still sinking the engine-shaft, and I am happy to say with prospects most cheering; the lode is working out in the shaft further than I have seen it for some time past, and the jack and lead seperating better than ever I expected to see at this depth. I broke a stone of jack last week and assayed it, and found it to contain about 1 per cent. of lead and scarcely a trace of silver, so I am persuaded that the silver is in the lead and not in the jack. The water has increased a little but it does not affect the engine a great deal. We have had two men driving in the 22, south of Basset's engine-shaft, on the course of the lode, and here we find the lode to be improving considerably; the lead and jack are seperating from each other very fast, and I hope and believe the time is not far distant when they will be entirely seperated, and the company have a paying mine.—Sept. 14: I have to report this month that what we call the capel part of the lode is now in the shaft all the width, so that the shaft is much harder than it has been before, and the water seems to be bursting out very strong in all directions; the main part of the lode is all to the east of the shaft, this part is spangled with galena throughout, seperate from the jack. From the change that has taken place in this part of the lode we may well expect a similar change in the main part of it, which we shall prove when we get down with the lift, and be able to cut through the lode. We still continue to drive south in the 22, and the lode in this part also appears to be improving, the galena getting into a body, but rather hard.

From the Worthing Mines (South Australia) we have advices to Oct. 5. Mr. J. Remfry reports that the tributers are now raising some good grey ore from the point of conjunction of the lode 3 fathoms from surface. They have a good mine, and patience only is required to place them in a satisfactory position.

The Port Phillip and Colonial Gold Mining Company have advices from Melbourne to Oct. 14. The operations at Clunes had been progressing satisfactorily. The machinery had been kept at work with but few interruptions. The quantity of quartz crushed during September was 544 tons, and in the fortnight ending Oct. 10, 250 tons. The yield of gold was improving. The new 12-head battery of stamps was nearly completed, and would be at work in the course of a week. The second Chilian mill would then be erected. The prospects at Clunes were considered very good—the result of 1850 tons of quartz crushed, showing an average yield of 1¾ oz. per ton. A new melting house had been erected at the assay office, and commenced working on Oct. 9. The quantity of gold melted during the month of September was 59,484 ozs. The company were quietly established at Clunes, and there was nothing likely for the future to interrupt the works.

The English and Australian Copper Company have advices to Oct. 7. The carting of both coal and ore had fairly commenced, under very favourable auspices, and promised to be very abundant. The cartage of the year ending June 30, had exceeded 28,000 tons. The company's wharf is now connected with Gawlor (26 miles north of Adelaide) by rail, and the coal and ore traffic was about to commence. About 2000 tons of ore were in course of, or ready for, shipment. The mob of horses had arrived from New South Wales, and the mules were engaged carting from the Murray Scrubs, and were looking very well. The works continued in full operation, and labour was generally more abundant.

WENDRON CONSOLS MINES.

Mr. Geo. Henwood (Dec. 2) thus reports on these mines: Having been requested to make a careful and full survey of these extensive mines, I proceeded first to make an examination of the situation and surface appearances, to enable me to form a more accurate opinion of the mine. These I found to be in the very heart of the great Wendron tin district, and to be literally surrounded by tin mines, of which this sett may be termed the centre. I found the whole surface had been turned over by streamers and miners. On examining the stent and burrows I found them to be wholly different, that many had come from tin lodes, and not from streams or adventitious sources; these lodes I traced on their backs for hundreds of fathoms to be continuous, and of the same character on each lode. Though the ground alternates, the lode's stones retain that peculiarity known only to tinners and to a quick eye for mineral. I found the lodes numerous, distinct, and positive in their characteristics, and highly favourable for stanniferous deposits. From this exploration I was quite prepared to find such splendid lodes as my underground experience will detail in the sequel, and that when you reach the change of ground which appears in the eastern part of the sett, where the white growan or decomposed granite comes in, you will have still better tin ground than has been yet seen in the mines. The machinery at the surface is extensive and effective for present purposes, but I would recommend the immediate erection of a steam-whim, with the use of a skip and wire rope, found so effective and economical in the mines into which they have been introduced. The extensive flat-rods, at present so great a burden to your magnificent engine, will soon in a great measure be dispensed with, the methods now being adopted in working the mine tending to that desirable result. The buildings on the mine are substantial and ample, the roads to the mine convenient and in good repair; water power for dressing purposes available to a great extent, but it is to be regretted at such a distance from the mine. Having thus far examined the mine, I proceeded to the stamps. I find a splendid water-wheel at Trenear, 25 ft. high and 8 ft. breast, driving 24 heads in capital style, and all the arrangements for tin dressing perfect, save the framing, where I cannot help stating had you some of Teagues self-acting frames you would make a considerable saving both in time and labour. I went to the lower stamps at Treluhbis, where I found 16 heads driven by water-power, and the arrangements good, except as aforesaid; also at Sithney Coverack 8 heads: so far my surface view gave me entire satisfaction. Accompanied by Capt. Bray, I descended the Hurler's shaft, on the western part of the mine, to the 12: a cross-cut north of about 7 fms. leads into a large east and west champion lode, which in this level, from the cross-cut to Bishop's shaft (west), has been very productive. From Bishop's shaft to Barclay's shaft the lode still maintains its character and appearances, but is not quite so rich for tin. Near Barclay's the lode is much disordered and poor for some distance, and is split by a horse of ground. A cross-cut has been most judiciously made from the southern branch (which had turned further south than the previous wall would indicate as its true position) to the northern branch; this branch has yielded tinny ground for several fathoms, and is gradually improving. The present end is better than it ever before looked, the appearances warranting the expectation of shortly meeting with the shoot of tin supposed to have gone down from the old men's workings further west. The shaft, now partly sunk, should by all means be immediately and vigorously proceeded with, for the double purposes of ventilation and drawing. This part of the mine promises great and immediate results, to realize which no time should be lost. Thence we went into the 22 through Bishop's shaft. The lode here has been driven on west for a considerable distance, and is of precisely the same character and composition as in the level above, being composed of hard capels, and lode containing tin throughout. On the footwall there is a flookan of the best character; the walls are particularly well defined, the country in which the lodes are imbedded is granite, varying considerably in density; this observation applies to the whole mine. The lode has been extensively stoped, but as at the deeper levels it will be explored (the present end being poor), considerable expense will be saved; the end, therefore, is properly stopped for the time. Two winzes have been sunk from the 12 to this level, one east, the other west of this shaft, thus affording capital ventilation. From this level we went into the sump or bottom of this part of the mine, which is now down nearly 10 fms. The lode here is very large, being upwards of 9 ft. wide, and, not all yet taken down; this lode is good work, particularly in the southern part, where by the sound I am persuaded the southern wall has not yet been seen; it is an extremely wet place, and the ground hard. We then ascended to the 22, where the lode has been stoped occasionally. A sink has been put down in this level, from which rich tin ore is now being raised. The lode in this, the eastern end, is at present very poor, but is necessarily prosecuted for communication with the main engine-shaft, when great advantages will accrue to the drainage of the mine. Thence we proceeded into the 12 east, to examine the places whence considerable quantities of tin have been extracted, and which warrants the expectation of large deposits being found in depth. A cross-cut has been driven south to discover a lode supposed to exist, but without success. I observed a number of strings or leaders, but all dipping towards the champion lode. We ascended through the Hurler's shaft, having explored this part of the mine. We next descended the main or engine-shaft to the 15, and into a cross-cut south, executed for purposes of discovery. A number of strings containing tin, and in one instance copper greens and mundic, were observed, all dipping north towards the great lode, which they undoubtedly enter at a great depth; these augur well, particularly the copper, as I have seen great results at South Frances from no better appearances than those at this level. This cross-cut has been driven 32 fathoms and a small lode cut, which has been driven on 4 fms. east and west, but being poor has been abandoned; another small lode was tried for a few fms., but found poor also. Another cross-cut has been cut for 20 fms., but nothing except strings of tin discovered. In the cross-cut from this shaft the lode was intersected at the distance of 6 fms., this is the same lode as previously described at the Hurler's; here also considerable quantities of tin have been stoped. The lode has been driven on west 22 fms. and east 60 fms., where a shaft, called Sleeman's shaft, has been sunk from surface for air and removal of tin ore and debris. At Sleeman's a cross-cut has been put out north to cut a lode seen in another cross-cut, made midway between these two shafts, where a shaft has been sunk from surface called Perry's shaft, this has not been sunk deeper. From these workings large quantities of tin ore have been raised and sold; the backs in rising coming up to the places where the old men had sunk. The appearances of the lode here, as at the Hurler's, are that of a champion lode of the country, warranting the assumption of the continuation of riches in depth, as will be proved by the description of the level below; no men are at work in this level now the richer parts are being extracted. We next went down a winze cut through the tin ground to the 25, the whole of the way down tin was found; but more extensive works have been executed on the western than on the eastern part. We now proceeded west to the engine-shaft, the cross-cut to which is about 9 fms., thence to the western end, which is being prosecuted with vigour to meet the eastern end from Hurler's; when this is done a great achievement for the mine will have been accomplished, only about 40 fms. more remaining to be cut; this end at present is very wet and hard ground, containing tin to the value of 8l. or 10l. to the fm. We then went down the diagonal shaft, which is sunk to the 35; here the plat is set to be cut, then operations will be commenced on the lode east and west; the bottom looks promising for tin. As soon as this level be driven east and west on the great shoots of ore previously described as having gone down from surface, a vast and valuable deposit may fairly be relied on; until this be done no considerable returns can be expected from this part of the mine, the reserves being limited. Ascending to the 25, we went east to Sleeman's shaft; the lode for a considerable distance is unproductive, but east and west of Sleeman's a good bunch of tin has been stoped; this level has now been discontinued, the ground being very wet, large streams of water pouring in all directions; this will be resumed when another shaft, east at Baldee's, shall have been sunk. The end at present is dangerous, giving tokens of approaching a "house of water" in some old workings seen at surface, in which case a deposit of tin may be expected, as in other parts of the mine under similar circumstances. From Sleeman's, at this level, a cross-cut has been extended south 20 fms. for discovery; this, as in the similar cross-cut in the upper level, abounds in branches containing tin, and dipping into the lode expected to be cut in Baldee's shaft, and is a most satisfactory experiment. We returned through this level, and descended Sleeman's shaft by a tackle, no ladders being yet put in; it is down about 4 fms., the bottom hard and wet, containing tin, and evidently improving as it goes down. When this shaft shall have been completed returns of importance may be expected from the runs of ore seen above; it may be asked, If the tin exists, why not take it up at once? The arrangements being adopted here will enable the ore to be raised at less than half the cost which would otherwise be incurred. We now ascended to the 15, and thence to surface, having examined every hole and corner of these extensive works, being underground from 10 a.m. to 5 p.m., and concluded our day's work. An accident occurring to the engine, and the 50, at Hill's, being under water, we were delayed a day, but on Dec. 4 we descended Richards's shaft to the 20, where a cross-cut south for a few fathoms led us to Richards's lode, on which a level has been driven east for about 8 fms.; the lode is large, composed of quartz, capel, and tinstone; near the present end there is a bunch of tin of very rich quality, about 4 or 5 ft. long; from the presence of a small slide on the footwall it is fair to presume this will be again found, though at present it terminates abruptly at the slides. On the west this lode has been explored 18 fms.; it is unproductive of work worth saving, though it contains tin; this end is properly prosecuted for discovery, there being tin ground operated by the old men still further west; this level has been occasionally stoped, thus indicating the propriety of these levels having been driven. A cross-cut south has been made to Hill's shaft 35 fms., in this several strings or feeders and strong capely courses have been met with, but nothing to value until Liddicoat's lode was cut; this is here valueless, being coarse, hard, and unpromising; several trials have been made on the various veins, but to no purpose. At Hill's shaft, Flander's lode is seen, but disordered and slightly hove by a small cross-course; it has been driven on east as far as Harris's shaft, but is poor throughout this trial. At the 30 a change of ground occurs, the soft white growan, or "great clay," comes in where it is unadvisable to work at present, the ground being so soft, the timbering so expensive, and the cost heavy. At the 12, west of this shaft, Flander's and Liddicoat's lodes unite; here has been a vast deposit of tin which has been stoped up to the old men's workings, and to the 30. Many fathoms of tin ground are still standing containing very rich work, being raised at 5s. 6d. in 1l. The western level has been extended 70 fms., but is now discontinued, being poor, still tin has been occasionally met with here; a cross-cut is being put out south for discovery. A bunch of tin is said to have gone down at Moyle's Hatch (one of the old men's works). Another cross-cut has been driven 20 fms. south, to endeavour to cut Liddicoat's lode, supposed to cross the Flander's lode, this is ordered to be driven a few fms. further. A cross-cut south has been driven 15 fms. to explore the ground; a coarse lode was found and driven on 8 fms., but found valueless. We then went down a winze from the 20 to the 30, on Flander's lode; this winze is through ore ground the whole distance; the tin being removed on the east and west displays the walls of the most positive and distinctive character, the lode averaging 3 ft. wide. In the 30 west, driven 40 fms., the lode appears to be destroyed by a ferruginous granite, presenting the character of a quarry: thence we proceeded east as far as the junction of this lode with a counter lode, bearing north-east by south-west; here an immense deposit of tin has been found. The counter is of an extraordinary character, influencing all the lodes in its course as far as seen. At Hill's shaft a small cross-course has been driven on to Flander's lode, which has been driven on east 15 fathoms. Thence we went back to the south part of a lode, called the south lode (not seen at surface), but forming a junction and a high bunch of mineral above this level), to the western part, where they have a fine bunch of rich tin 6 fms. long, but gradually diminishing to 3 fms. in the rise. A level has been extended 30 fms. west, where pitches are now working at 9s. and 10s. in 1l., back and bottom respectively; thence by a cross-cut we reached the north lode, or Flander's lode, then down a sink at the junction of the three lodes, where the richest part has been found. The men are now driving west on the south lode, whence large quantities of tin have been raised. The middle lode is still very rich, with every promise of continuing so; it is now let on tutwork. The north lode in this level is exhausted, the south is being driven on for experiment, being tinny, but not very rich. We now proceeded to the 40, through Hill's shaft, where a level has been driven on west to the junction; here, as above, rich deposits of ore were found. A level has been driven west on Flander's lode, which had contained a little tin near the end (35 fms.) A winze has been sunk from the 30, affording good ventilation. The south lode has been driven on 20 fms., and a cross-cut south put ont to cut a lode seen near the junction. The lodes, at their junction have been stoped, men are now being employed in sinking on the lode; capital work for tin, and plenty of it; the upper part being poor has been stopped. A winze has been sunk from the 40 to the 50, through the lode, affording good work for tin all the way,

thus showing great reserves of tin discovered here. We then went through Hill's shaft to the 50; the place is in confusion, and the descent at present dangerous, not being complete from the late necessary change in the pitwork. A level has been driven west on Flander's lode, 16 fms. of which is here very hard, but contains good tin; a level has been driven on the south lode 2½ fms., the lode large and good for tin. A plat has been cut, and preparations made for sinking to the 60, which work should not be delayed, as you have satisfactory evidence, level after level, that you have productive and valuable lodes, which only require to be opened up to develope a great and lasting mine. We ascended to the 12, where extensive works have been made, but are now abandoned: this completes the underground survey.

RESUME.—I have been thus unusually diffuse and particular in my remarks on this mine, as I am astonished to find so much work done so effectively for so small an outlay, and it ought to satisfy the most sceptical that good management has been the cause. The mine is in excellent condition at present, and will shortly be greatly improved, as the reserves are good, the appearances for future returns (when the ground shall have been laid open) important, and the chances of discovery good. The mine has been judiciously and fairly worked, displaying great ability on the part of the agents, and a sure guarantee of a lasting dividend mine.

Mining Correspondence.

BRITISH MINES.

ABBEY CONSOLS.—J. Trewin, Dec. 7: The lode in the 10, east of the engine-shaft, is not quite so good for lead, worth at present 5 cwts. of lead ore per fm. The lode in the adit level, west of the said shaft, is become in a more settled state, composed of quartz, blende, and lead, worth of the latter 5 cwts. per fathom. The lode in the adit end, west of the eastern shaft, is composed of quartz, &c., producing 2 cwts. of lead ore per fm., and has an improving appearance. The lode in the adit end, east of the eastern shaft, is much of the same character, consisting of quartz and blende, with spots of lead ore, and has the same promising appearance. The lode in the eastern shaft is worth from 9 to 10 cwts. of lead ore per fm. The lode in the rise in the back of the adit is about 4 feet wide, and for the present not much lead in it. No. 1 stopes are producing 10 cwts. of lead ore per fathom. No. 2 stopes are worth 8 cwts. of lead ore per fathom. The stopes east of the rise are worth 5 cwts. of lead ore per fathom.

ANGARRACK CONSOLS.—J. Barratt, Dec. 9: The depth of Cox's engine-shaft on Saturday last was 20 fms. 2 in.: we expect to sink it 3 fms. more to communicate with Mellinoweth adit. We have had contrary rock, or we should have communicated ere this. In three weeks more, without a doubt, we shall have the mine thoroughly opened. The adit end cross-cut is in 15 fms. 2 ft. from the junction of caunter and Eaton's lode, leaving 7 ft. more to drive to reach the centre of Cox's shaft, which will be accomplished in about a fortnight. We shall at once resume the driving of Mellinoweth adit end eastward, on Eaton's lode, towards Herland great cross-course. In a few fathoms driving we shall intersect the new caunter lode discovered in the cross-cut, at which junction we may expect a deposit of mineral, the new caunter, as well as Eaton's lode being highly mineralised. The western end, on Eaton's lode, will also be productive as soon as the end force have holed or communicated with the shaft. Blamey's winze is for the present suspended, in consequence of the water being quick; the lode in this winze is from 9 to 12 in. wide, producing good stones of yellow copper ore, and which must be further explored when the bottom of the adit is drained. We shall also, when a communication with the shaft and adit is effected, put a party to rise in the ore discovered in the back of the adit, on Eaton's lode. The engine-house, with the stack, will be completed by Saturday, the 19th inst. The masons are at present building in the wing sides, 2 ft. above the top of the main beam end. The carpenter is engaged preparing shears, also the roofing, floor, &c., for the engine-house. Every branch of the work is being carried on with all possible dispatch.

BALLYMONEEN.—Wm. Barkis, Dec. 5: We have suspended the 15 cross-cut, driving north, for the present, and have put the men to drive east, where we have a good lode of sulphur; we shall also put six men to drive west, on Monday next. The 15 north has been driven since last report 1 ft. 2 in.—total driven, 21 fms. 2 ft.; driven east since last report, and total driven, 2 feet. The winze sinking below the adit level is without any change; driven since last report, 4 ft. 6 in.—total driven, 6 fms. 2 ft.

BALLYVIRGIN.—D. Macdonald, R. Pellow, H. Kellaway, Dec. 1: The cross-cut west from the bottom of the engine-shaft has been driven 7 ft.; the ground still continues very hard for driving. The lode in the north end of No. 1 stope has been disordered by a slide—a floor of limestone, carrying a little flookan upon it; the cross-cut going east at this point has been driven 4 ft.; we have not yet intersected the lode or met the footwall, but hope to do so every day. No. 2 stope is now within 8 feet of the ore ground which we had in No. 1 stope, and is worth at present 2½ tons of copper ore, 8 cwts. of lead ore, and 12 tons of mundic per fm. No. 3 stope is 2¼ fms. behind No. 2 stope, and is worth fully 2 tons of lead, 10 cwts. of copper ore, and 5 tons of mundic per fm. We have been drawing the stuff from the cross-cut east, and have set a bargain in it to four men, to drive east, at 10l. per fm. We have added 8 tons of second crop, 1 ton of first crop copper ore, 2 tons of lead ore, and 10 tons of mundic to pile since last report, besides preparing 3 tons of lead and 2½ tons of copper ore for the crusher. We have put to grass, since last report, about 40 tons of ore, of which the principal part is mundic. We have plenty of water for dressing purposes. We shall require, after this week, to divide and case the shaft under the 10 fm. level, in order to bring the whim-kibble to the bottom of the shaft, to draw the stuff broken in the cross-cut west.

BALNOON CONSOLS.—Wm. Hollow, Dec. 8: No change to speak of since last report. The Wools shaft still continues hard; we are, however, sinking it as fast as possible. At flat-rod shaft we are still going on as before, driving south and west—nothing new.

BEDFORD CONSOLS.—J. Hodge, J. Mitchell, Dec. 10: The lode in the adit end is very much the same in appearance to that before stated; so is also the lode in the south end—ground rather hard. All the surface work is progressing favourably. You shall have a full report for the meeting on Monday next.

BEDFORD UNITED.—J. Phillips, Dec. 10: We have no alteration in the bottom levels. Paull's stopes, in the bottom of the 115 east, will yield 5 tons of ore per fm. Huggins's stopes, in the bottom of the same level, will yield 4½ tons of ore per fm.; and Jeffery's stopes, in back of this level, will yield 2½ tons of ore per fm. The lode in the 115 end west is 3 ft. wide, and will turn out about 3 tons of ore per fm. The lode in the 35 east is producing good saving work.

BODCOLL.—F. Evans, Dec. 7: We have not taken down much of the lode in the 10 west, as we want to drive as much as we can; the part taken down shows good branches of lead in a beautiful spar, and nothing can be more promising—driven last week 2 ft.; total driven, 33 fms. 0 ft. 9 in. Evans's shaft is down 7 fms., having been sunk 5 ft. 6 in. during the past week. We have something like lode stuff here, but I cannot say that we have the main lode yet.

BOILING WELL.—J. Delbridge, Dec. 5: In the 60 east we have driven east of King's shaft on the south part of the lode. In the coming week we purpose rising against the shaft from the 50, and sink towards the rise on the flookan part, as sunk above. In the 50 east the lode is 3 ft. wide, unproductive. In the 40 east the lode is 9 in. wide, good tribute ground. In the 40 west, on the south part, west of Austin's, the lode is from 3 to 5 ft. wide, yielding fine stones of copper ore; also good lead and blende ores; this appears to be the north lode in the 60. In the 30, east of Austin's, the lode is 9 in. wide, stones of lead; this is in the north part. In the 20 west the lode is 2 ft. wide—tribute ground. In the 20, west of Syrett's, the lode is 2 ft. wide, opening in good tribute ground. In the 20, east of Syrett's, the lode is 1¼ ft. wide, 6 in. of the north part a good branch of lead ore. Our lead pitches are much as usual. Our copper tribute is not looking so well as the last month. Other things continue without change.

BRYNTAIL.—J. Roach, Dec. 10: We have not yet met with a defined north wall in driving the cross-cut through the lode in the 10; the ground is still impregnated with ore, from which a pretty deal of water now issues. The driving is continued by two men, and we are now driving east of the cross-cut on the most promising part of the lode, by four men; in this we find good stones of ore. The stratum is congenial for lead, and the appearance of the level is very encouraging.

BULLER AND BERTHA.—J. Hambly, Dec. 9: The walls of the engine-house, boiler-house, and stack are finished, and the wood-work of the roof will be completed to-day. By the end of the week the roofing will be all on, if the weather will admit, and soon after Christmas, Mr. Mathews says, we shall be in order to work the engine. The men are employed removing the burrow to make a bob-pit; when this is done, we shall then finish collering up the shaft, &c.

BWLCH CONSOLS.—R. Northey, Dec. 7: The following is the setting list for December:—The 60 west is set to six men, at 4l. per fm.; the lode is in a disordered state, and no lead to value; the 60 east is set to four men, at 5l. 5s. per fm.; the lode is a little improved, worth for lead 3 cwts. per fm. A winze to sink in the bottom of the 50 to six men, at 5l. 10s. per fathom; lode poor. The 27 is set to two men, at 3l. 10s., 1 fm. stent; lode 3 ft. wide, with spots of lead. A level in the 40 is set to six men, to drive west at 5l. 10s. per fathom; this is the place that I reported last week, 15 cwts. per fm., cut in a cross-cut in the 40, it is about 60 fms. west of shaft, and I think the main part of the lode, as it carries a better footwall than has hitherto been seen in this part of the mine. No. 2 stope, in back of the 50, is set to six men, at 3l. 5s.; the lode is worth 6 cwts. per fm. for lead. No. 3 stope, in back of the 50, is set to six men, at 3l. 10s.; lode worth for lead 8 cwts. per fm. Pwllthrynaid shaft is set to six men, to sink 5 fms. certain, at 10l. per fm. I have four men in old mine doing all they possibly can; but we must put in a footway, and clear several runs, before I shall be able to say much about the matter, which will take the greater part of this month. I have ordered rails and timber for repairing the old mine, and some of the timber is delivered. No time will be lost in pushing on the work with all speed.

CALSTOCK CONSOLS.—Robert Dunstan, Dec. 7: The 12 is now driven 14 fms., 2 fms. of which have been driven during the past week, and the course of ore continues, and has every appearance of being a large deposit of ore, and the recent improvement in the adit end, which is 50 fms. ahead, and also in the bottom of the winze going down below the adit, shows in my opinion a direct communication between these points and the course of ore now seen in the 12. The ground at the shaft going down below the 12 is also much improved, which speaks well for the ore making in depth as well as in length.

CAMBORNE CONSOLS.—W. Roberts, Dec. 8: The following bargains were set on Friday last:—The 50 to drive east of Wheal Gons cross-cut by six men, at 16l. per fathom; lode small. The 20 west from Tindal's shaft by four men, at 6l. 10s. per fm.; lode 1 ft. wide, with occasional stones of ore. The 10 west of ditto by four men, at 6l. per fm.; lode 2 feet wide, producing mundic and stones of ore. A winze to sink under the adit by four men, at 3l. 5s. per fm.; lode 1 ft. wide—tribute ground.

CARADON CONSOLS.—W. Rich, Dec. 8: We are driving the 38 cross-cut north with six men; the ground in the end is very stiff. There is no alteration worthy of notice in any other part of the mine.

CARVANNALL.—W. Roberts, Dec. 8: The following bargains were set on Wednesday last:—The engine-shaft to sink under the 118 by six and three boys, at 22l. per fm.; the lode is 2 ft. wide—unproductive. The 118 west by two men, at 3l. per fm.; lode small. The 106 west by two men, at 3l. per fm.; the lode is 3 ft. wide, composed of mundic and stones of ore. The 86 west by four men, at 4l. 10s. per fm.; the lode is 1½ ft. wide, producing crystallized iron, and a little ore. The 76 west by six men, at 4l. 10s. per fm.; the lode is 2½ ft. wide, very promising, with occasional stones of ore: 12 men are working five pitches, at tributes varying from 2s. 6d. to 12s. in 1l.

CATHERINE AND JANE.—R. Harry, Dec. 10: The lode in the deep adit end is 3½ feet wide, composed of spar, mundic, and carbonate of lime, with occasional stones of good quality lead ore; the ground is becoming easier to explore, and more congenial for the production of lead; from its present appearance, I am of opinion we shall soon have a good lode in this end. The lode in all other parts of the mine continues much the same as when last reported on. We have on the dressing-floors about 4½ tons of lead ore. The walls of the lead-house are up, and we are to-day getting the timber on the roof, and hope to have it all stated next week. If the weather continues favourable, the enlargement of the dressing-floors will be completed in twelve or fourteen days from this date.

CLIJAH AND WENTWORTH.—C. Glasson, Dec. 5: In the 80 cross-cut north we have driven through the elvan-course, but up to this time have not met with any lode, but expect to shortly. There is no alteration in the 80 cross-cut south since last reported. In the 70, on Wentworth lode, driving west of Walter's engine-shaft, the lode is 3 ft. wide, but unproductive. In the 70, on Wentworth lode, driving east of Walter's engine-shaft, the lode is 3 ft. wide, at present poor. The 60, on Julia lode, west of Walter's engine-shaft, is suspended for the present. In the 50, on Julia lode, driving west of Mary Ann cross-course, the lode has a better appearance than for some time past. There is nothing new in the rise on Julia lode, west of Mary Ann cross-course, since last reported on. The winze in the bottom of the 40, on Julia lode, is without alteration. In the 30 fm. level, on Julia lode, driving west of Mary Ann cross-course, the lode is producing good stones of ore, but not in sufficient quantities to value.

COLLACOMBE.—S. Mitchell, Dec. 8: During the last week the 62, west of the western shaft, has been driven 3 feet, and the lode worth about 1 ton of rish ore per fm. The 40, west of the western shaft, has been driven 3 feet, and the lode worth about 1¼ ton of ore per fm. Other points continue as last reported on.

COLLEGE.—A. Braithwaite, B. Tucker, Dec. 5: In the 20 north, on the Blue lode, we have cut into the flookan at the bottom of the end at about 18 in. high; we are nearly 2 fms. further north than the forebreast of the end that closed. We shall arrive at the the footwall in about a week or ten days. We can only say at present that the flookan is more congenial for lead. The new winze is looking well for lead, worth 14 or 15 cwts. of ore to the fathom. No alteration in the tribute pitches and other works since my last report. The tributers have been getting up their stuff and clearing the levels. We shall forward this week to Dublin a further sample of lead ore for sale.

DALE LEAD.—R. Ninnes, Dec. 10: We have just touched the lode in the pipe vein in the 37 fm. level cross-cut, and we are now making the necessary preparations for stoping it before us from the 32, which can now be done to a very great advantage, and from every appearance we may expect a large quantity of lead in a very short time. The mine throughout is much improved since my last, except the 26 south, on No. 3, where we do not expect much alteration until we reach the same run of ore ground now driving through in the 32.—P.S. Since writing the above, we have got a little more into the pipe, and are now breaking some large lumps of solid lead.

DAREN.—J. Humphreys, Dec. 7: The branch of ore which I reported to have discovered in the adit of the old mine has turned out very well indeed; should it continue as we drive on the lode a very profitable yield may be expected. I have no other alteration to mention in the appearance of the mine; all the bargains are going on as usual.

DEVON BULLER.—W. Neill, Dec. 10: The prospects of this mine continue much the same as for some weeks past. We are getting on with our dressing for another parcel of ore for the next sampling, which will be about the same quantity as the last—60 tons—but of better quality.

DEVON BURRA BURRA.—John Lord, Dec. 10: The shaftmen are making fair progress in sinking the engine-shaft; the ground in this shaft is much the same as last reported. The men are making good progress in driving east; the lode is composed of gossan, prian, and peach, with spots of copper ore, but no appearance of the cross-course as yet. We are forking the water at White's shaft, and I hope to get it in fork by the middle of the week; it is forking about 6 ft. in 24 hours. Our engine and pitwork are in good working order.

DOLWEN.—F. Evans, Dec. 7: We have not yet got the water out of the shaft, as everything connected with the machinery is not yet completed; we shall, however, do so in a few days.

DRAKE WALLS.—T. Gregory: We have resumed the sinking of Bettley's shaft below the 90, by six men. In the 90, east of Batteley's, we have at present a good branch of tin; we propose to force on this level so as to communicate with the 92, west of Matthews's, which would greatly facilitate the drawing at Batteley's. There is no change to notice in the 92, east or west of Matthews's, since last report; the stopes in back of these levels are producing saving work. The branches in the 80, east of Matthews's, are gradually improving, and the ground of a favourable character; no change to notice in the stopes in back of this level. The branches in the 70 east are rather improved and promise a further improvement. The stopes in the back of the 70 are producing coarse work. We have no change to notice either in the 70 cross-cut north or the deep adit.

EAST CARN BREA.—T. Glanville, Dec. 9: There is nothing new to report.

EAST HENDER.—N. Clymo, Dec. 8: We are proceeding vigorously with the main shaft, the lode still keeps improving, and is producing fine stones of ore. We have nine men in the shaft, at 18l. per fathom, four men driving the cross-cut south, at 2l. 10s. per fathom, and two men driving east, at 2l. per fm. In driving the cross-cut south we met, on Friday last, with a lode about 12 in. wide, containing some fine stones of copper ore; this is not the main lode, which we are driving to cut, and hope to meet with soon. We believe that by the erection of a water-wheel with flat-rods, at a very moderate outlay, we can sink the main and western shafts 15 to 20 fathoms more, and thus thoroughly prove the lodes, of which we have at present three, all producing good stones of ore, and quantities of mundic in two. Other parts of the mine are about the same as usual.

EAST PROVIDENCE.—W. Hollow, T. Uren, Dec. 9: The eastern adit is driving west by four men, at 45s. per fm.; the lode here continues much the same as last reported, producing rich stones of tin. Wheal Mount adit is driving south on Comfort lode, by four men, at 7l. 10s. per fm.; the lode here is 15 in. wide, worth 10l. We have set a new shaft to sink from surface on the eastern adit lode; this shaft is intended for a flat-rod shaft, it is about 20 fms. before the present end, which we hope it will be in by the time the shaft is down to adit; set to sink by four men, 5 fms. for 10l. contract. We have set the carpenters' shop, smiths' shop, and account-house to build at 4s. 9d. per perch, and 7s. 6d. per square for roofing. We are engaged making roads to bring stone and other materials into the mine. The contractors are to provide everything for the walls except lime. On the whole, our prospects are of the very best kind.

EAST ROSEWARNE.—J. Delbridge, J. James, Dec. 6: The engine-shaft is set to sink 6 ft. for bearers and cistern, fix the lift in the 32, and to complete the job, to be paid 30l.; the lode in the bottom of the shaft is 2 ft. wide, at present disordered. In the 22, east of engine lode, the lode is 9 in. wide—poor. In the 22 west lode is unproductive. In the 22 east, on the north lode, the lode is 12 in. wide, yielding some good ore—tribute ground. In the 22 west the lode is in two parts, 12 in. wide, tribute ground. In the 12 east, on the north lode, the lode is small, but more kindly, and not to value. At the west shaft the ground is favourable. In the No. 2 winze the lode is 14 in. wide, producing stones of ore: we have 3 ft. to sink in this winze to hole to the 22; when this is communicated we purpose putting the men to drive east of the engine-shaft in the 32, where we have a large lode, yielding some good stones of ore. We are driving the adit cross-cut in search of the lode; we expect 5 fms. more driving will meet the south lode; this month will cut it, if all be well. Our tribute is without change to notice, but the pitch in No. 1 winze is much improved within the last 3 ft. sinking.

EAST WHEAL FALMOUTH.—W. Burrows, Dec. 9: The shaftmen are engaged in driving the cross-cut west in the 30 fm. level; the east lode has not yet been intersected. Chennall's lode in the 20, north end, is worth 3 tons of silver-lead ore per fm.; the south end being near the intersection of the old lode it is disordered, and the men are placed to rise in the back, where the lode is worth 3 tons per fm. Deeble's stopes, in the back of the 20, on the old lode, are worth 18 cwts. of silver-lead ore per fm. Chennall's stopes, in the bottom of the 10, are worth 3 tons of silver-lead ore per fm. We shall sample this day 40 tons of silver-lead ore. The jack ore (say 40 tons) is not yet sampled.

EAST WHEAL ROBERT.—E. Collom, Dec. 9: The increase of water and the change of ground in the cross-cut are strong indications that we are drawing near the lode, while the rich ore we continue to meet with in the small branches forming droppers to the lode is an almost infallible sign that the lode before us is rich also. The water, too, burns very green at the candle, and the small "queers" and crevices we meet with often contain a deposit of rich copper ore. Our men, though encountering difficulties, are yet encouraged by the prospect of having a rich mine before them, of the benefits of which I hope both they and I may yet be partakers.

EAST WHEAL RUSSELL.—J. Goldsworthy, Dec. 10: There is no change to notice in the 58 since last reported. There is no alteration in the lode in the 66 end east. We have commenced driving by the side of the lode, and shall not take it down for 12 or 15 days from this date. The stopes east of Williams's winze are as stated in my last, worth 3 tons of ore per fathom. The stopes west of Williams's winze are suspended, the lode not producing sufficient ore to pay for stoping; in these stopes the ore does not make up, though we had a good lode in driving the end through this piece of ground: I have taken the men and put them to repair the tramroad in the 55, and when completed I shall put them to sink a winze in the bottom of this level to ventilate the 66. The pitch in the bottom of this level is as usual, worth from 2 to 2½ tons of good copper ore per fathom.

EAST WHEAL TOLGUS.—Dec. 5: During the past week our men have chiefly been engaged in capstaning, taking up the lifts, rods, &c., out of the flat-rod shaft, consequently we have done but little in our tutwork bargains. The lode has been taken down in the rise in the back of the 12, which is from 20 in. to 2 feet wide, and will produce about 1½ to 2 tons of ore per fathom for length of rise (11 feet). The lode in the 12 fm. level, driving east from the engine-shaft, is 4 feet wide, consisting of peach, prian, quartz, and some tin and copper ore, of the latter about ½ ton per fathom; this is a fine-looking lode, and has a very kindly appearance. In the other end there has been little or nothing done for the week.

EXMOUTH.—J. Hampton, W. Skewis, N. Faull, Dec. 9: The lode in the 60 north is worth ½ ton of lead ore per fm.; this end is now being driven by nine men; the cross-cut west is in mineralised ground. The same remark applies to the rise. The lode in the 40 north is small, but we are cross-cutting east and west; in the latter we have intersected a leady lode, but we have not cut into it far enough to state its value. The stopes vary in quantity from ¼ to 1 ton per fm. The 30 north and stopes are worth about ½ ton per fm.; the winze in the bottom of this level is suspended, and the men are put to drive north on same lode in the 30. The lode in the 20 south is improving for lead. The 10 north, which we are now driving, is worth ¼ ton of ore per fm. We are also driving a cross-cut west in the 10 south. We are also driving a cross-cut west in the adit level, in the south part of the mine. The rise in back of adit against W. Barratt's pitch is more speedy. The pitches are much as usual.

FRANK MILLS.—J. P. Nicholls, Dec. 8: The winze and the rise from the 60 to the 72 fathom level south, on east lode, are communicated; the last 5 fathoms rising and sinking the lode has been worth from 8 to 9 cwts. of lead per fathom; this winze has well ventilated the south part of the mine. We shall now resume driving the 60 and 72 ends south. The east lode in the 60 end north is at present disordered by a small slide crossing it. Cole's stope, in the bottom of this level, is producing from 12 to 14 cwts. of lead per fathom. The winze in the bottom of the 60 north, on the west lode, is sunk 3 fathoms; the lode is 2 feet wide, producing from 4 to 5 cwts. of lead per fathom. The 72 end is now 6 fathoms behind the perpendicular of the latter winze; the lode in the end is improving, and we are now saving some work from it, and by its appearance I think we shall have a great improvement in the lode before we reach the winze. The 84 north and south, on west lode, are without alteration since last report. We have cross-cut east 4 fathoms from the 84 north, and intersected another branch of the east lode, worth from 5 to 6 cwts. of lead per fathom. The tribute pitches are yielding a fair quantity of work, and looking much as usual. On Saturday last we sampled a parcel of good quality lead ore, computed 48 tons, and by the improved position of the mine I am happy to state the next sampling will considerably increase.

GAWTON COPPER.—J. Gill, Dec. 9: In the 50, driving west, the lode is 2 ft. wide, composed of quartz, mundic, and occasional stones of ore, but not to value; ground still favourable for driving. In the 36 end the men are still engaged cutting through the lode, which appears to be very large, having cut into it 6 ft., and no sign as yet of the north wall; the part driven through is composed of quartz, capel, and interspersed with copper, but not sufficient to value. The lode in the end below the 24 is from 5 to 6 ft. wide, worth 6l. per fm.; the stopes in the back of this end are worth 10l. per fm. The stopes in bottom of the said end are worth 12l. per fm. The stopes in the back of the 36 are worth 10l. per fm. All our surface operations are progressing satisfactorily.

GARREG.—John Trevethan, Dec. 10: Since the meeting of the adventurers, held last week, we have driven 4 feet further through the lode, but not yet cut to the north wall; it has, however, improved daily, and from the appearances at present it is very likely to become a profitable lode.

GREAT CARADON.—J. T. Penprase, Dec. 10: We have been costeaning east of the boundary 70 fms., and found No. 1 lode to be of the same character as found in the boundary shaft. The lode in the boundary shaft is still looking well, composed of prian, soft spar, mundic, and spots of rich copper ore. We have also cut No. 3 lode to the north, and of a more promising character. The lodes No. 1 and No. 3 come together about 30 fms. in depth; No. 1 lode underlays north, and No. 3 lode underlays south; there cannot be a doubt of a rich mine here, having found copper in all the lodes cut, and at such a shallow depth. I have pitched for the new shaft 80 fms. east of our late working. Some of the men are employed in filling in the pits, &c., and others are working in the south in search of No. 2 lode, 400 fms. west to the boundary of our sett.

GREAT CRINNIS.—E. Shaw, W. Woolcock, Dec. 7: We have a little improvement at Daniels's shaft, in the 20 and 30 fm. levels: the pitches working in these two levels are now valued at 4l. per fm. We have also one pitch working in the 17, on the middle lode, east of Hannah's shaft, valued at 3l. per fm. Two pitches working at Catherine's shaft, in the 31, are valued at 4l. 15s. per fm. Two pitches working in the 17 and 24 fm. levels, east of old sump shaft, are valued at 6l. 10s. per fathom. Three pitches working west of Cornish's shaft, two in the 24 and one in the 31, are valued on an average at 6l. per fm. And one pitch working adjoining the sumpmen's stopes, east of Union shaft, in the back of the 80, is valued at 7l. 10s. per fm. The sumpmen's stopes are also valued at the same amount.

GREAT SHEBA CONSOLS.—J. Spargo, Dec. 10: The stopes in the back of the 40 are without any material alteration since my last, and the stopes in the 30 east likewise; both are turning out fair quantities of ore. The ground in Kelly Hole shaft is still favourable for sinking, no water as yet.

GREAT SOUTH TOLGUS.—John Daw, Dec. 9: The lode in the 80, west of new shaft, is 1 ft. wide, producing a little ore. At the engine-shaft sinking below the 70 the lode is 2 ft. wide, composed of quartz, peach, and copper ore. In the 60, on the south lode, the lode is 1 ft. wide, producing 1 ton per fathom. In the winze sinking below the 80 the lode is 4 ft. wide, producing 9 tons per fm.; this winze is suspended for the want of air. In the 40 the lode is 1¼ foot wide, producing 3 tons per fm. In the 30 the lode is 1¼ ft. wide, and producing 2 tons per fm. The stopes and pitches are looking well.

GREAT TREGUNE CONSOLS.—J. Spargo, Dec. 10: We have just completed fend-off bob plat at the 20, and in doing so have discovered more of the lode or south branch, which is all of 2 ft. wide. I calculate we shall complete all our rods to the 40 in the following week, so as to commence driving again at the 60, which we feel very anxious to do, having a good oray lode in the end. We have completed the timbering at Carkee's shaft, and shall commence forking the water on Saturday.

GREAT WEST SORTRIDGE.—Jas. Richards, Dec. 10: In the 50, which is still being driven in a south-westerly direction, the main part of the lode is being intersected; it is so far as cut into (6 feet) composed of capel, an abundance of mundic, quartz, and good stones of ore. In the 30 west the lode has during the week yielded some rich stones of ore.

GREAT WHEAL ALFRED.—M. W. Michell, W. Bugelhole, Dec. 5: The lode in the 130, west of Copper-house shaft, is 5 ft. wide, worth 8l. per fm. The lode in the 170, west of the above shaft, is still disordered by the flookan, and producing but little ore. The lode in the 160 west, on the south part, is worth 30l. per fm.; this level west, on ditto, is worth 6l. per fm. No change in either of the cross-cuts in this level. The lode in the 148 west is 2 ft. wide, worth 6l. per fm. No change in any other part.

GREAT WHEAL VOR UNITED.—M. W. Martyn, Dec. 5: The water at Crease's shaft is drained 3 fms. 4 ft. 6 in. below the 236. At Trelawny's shaft the water is drained to the 236, 13 ft. below the 236 at Crease's, and would have been some fms. below but for the stopping Crease's engine to send away the drop-lift. Bounder shaftmen have been employed cutting ground and fixing strong timber to support the ground by the shaft near the 236, and are preparing the shaft with every possible dispatch to be in time for fixing the pumpwork for draining the mine below the 248 to the bottom, by the pumpwork to be fixed at this shaft. In the 174, 36 men are employed in cutting open places for shieves to carry the rod in the level, fixing timber, and making places for the anchorage timber to carry the angle-bobs, and every exertion is being used by the men and agents, with an agent upon the works day and night, to get the work completed in the least possible time. The principal part of the work, necessary for the reception of the bobs and rod, will be done by this week. The lode in the stopes over the 236, at Crease's, is worth upwards of 20l. per fm. The tributers on the different lodes throughout these mines have commenced to work their respective pitches with vigour, and are making good wages. We would observe that the strictest economy will be adopted throughout these mines, whilst all that can be done to forward the work necessary for the further drainage of the deep workings will be applied, especially in the 174 and Bounder shaft, together with all other important points that may be made to increase the returns; and should Trueman's lode continue regularly to improve, as it has done in the last month, it will assist our returns.

GWYDER PARK CONSOLS.—H. Rawson, Dec. 10: In driving the west cross-course the ground is much the same as last reported, but the lode has become more regular—about 18 in. wide, composed of lead throughout, and looking promising.

HAWKMOOR.—J. Richards, Dec. 7: We have been sinking by the side of the lode at the engine-shaft this past week; the branch on the south part is 1 foot wide, producing some good saving work, and is certainly a very promising lode for copper. In the 50 west we have not taken down the lode; it looks well on the south part; we shall continue to drive by the side of it up to our setting-day. In the adit end we have cut a small branch, about 3 in. wide, producing some good copper ore.

HERODSFOOT.—J. Wolferstan, Dec. 10. In the 127 the lode in the end is worth 20 cwts. of ore per fathom. We have three stopes in this level—No. 1, worth 9 cwts.; No. 2, 8 cwts.; and No. 3, 15 cwts. of ore per fathom. In the 117 the lode in the end is worth 6 cwts. of ore per fathom. The stopes in this level are as follow:—No. 1, worth 10 cwts.; No. 2, 8 cwts. of ore per fathom. In the 106 the lode in the end will yield 4 cwts. of ore per fathom, and the stopes are as follows:—No. 1, worth 9 cwts.; No. 2, 12 cwts.; No. 3, 7 cwts.; No. 4, 9 cwts.; and No. 5, 9 cwts. of ore per fathom. In the 82, No. 1 stope will produce 10 cwts.; and No. 2, 6 cwts. of ore per fathom. We expect to sample 90 tons of ore on Jan. 2.

HINGSTON DOWN CONSOLS.—Wm. Richards, Dec. 9: There is no change to notice since the general report of last week.

HOLMBUSH.—In the 145 west the lode is a little improved, though not yet producing any ore to value. The end driving east in this level, on the south part of the lode, is suspended on tutwork, and is set, together with the back of the level, to four men on tribute. In the 145 west, on the new copper branch, the lode has been taken down in the past week, and will produce 1 ton of ore per fathom. In the 145 south, on the lead lode, the men have been set to drive east through the lode, which will be reported on next week. In the 160, east of diagonal, the lode will produce 2 tons of good ore per fathom. The stopes in the back of this level, west of Lemon's winze, will yield at present 1 ton of ore per fathom. A new stope has been set to six men in the back of this level, east of Lemon's winze. In the 160, west of diagonal, the lode in this end is now 2 feet wide, producing good stones of ore, mixed with coarse spar, evidently portions of the great cross-course, with which we are nearly in contact. A winze has been set to sink in the bottom of the 145, west of diagonal, to communicate with the before-mentioned rise. In the 145 west, on the flapjack, there is no lode discovered west of the cross-course named in my report last week. In the 132 south, on the lead lode, this end is not yet extended far enough south to meet with the western branch, which it is expected will fall into it. In the 124 cross-cut north, at Wall's, no lode has yet been discovered.

KELLY BRAY.—S. James, Dec. 5: Yesterday, being our setting-day, the following bargains were set:—The 135 to drive east, by six men, at 10l. per fathom, 2 fms. stent; the lode is 1½ ft. wide, composed of quartz, mundic, and stones of ore, but not enough to value: here we hope to meet with an improvement ere long, as there is a strong healthy lode gone down in the level above, to the east of this end. The 45 west is set to drive by four men, at 6l. per fathom, 1 fathom stent; here the lode is still large and kindly, it is 2½ feet wide, composed of quartz, mundic, and interspersed with ore. It appears that the shoot of ore which was driven through in the level above is dipping west very flat; by this means there is further to drive to intersect it than we calculated on some time ago at this point. The winze in the bottom of the 35 is set to sink by four men, at 3l. 10s. per fathom, 3 fathoms stent; here the lode is 2 feet wide, worth 15l. per fathom, and still looking kindly to hold down: this winze has been sunk about 4 fathoms below the 35. We have set a stope in the back of the 35 west, at 14. per fathom, 8 fathoms stent, to two men, where we hope to break a good pile of ore this month. We have also set the cross-cut to drive north in the 40, at Watson's engine-shaft, by six men, at 6l. 10s. per fm., 4 fms. stent; and a plat to cut, by six men, at per bargain, 10l. We have seven pitches working, at an average tribute of 11s. 8d. in 1l., and we have commenced dressing ore for another sampling with all possible dispatch.

KESWICK.—J. Postlethwaite, Dec. 5: The ends in the 50 north are not so good as last reported, being now worth 10 cwts. of ore each per fathom. In the 50 north No. 1 stope is worth 10 cwts., and No. 2, 5 cwts. of ore per fm. In the 40 north the lode in the end will yield 18 cwts. of ore per fathom; the stopes in this level are as follows:—No. 1, worth 10 cwts.; No. 2, 6 cwts.; No. 3, 10 cwts. of ore per fm. The stope in the 40 south is worth 8 cwts. of ore per fathom. In the 30 north we have the following stopes:—No. 1, worth 8 cwts.; No. 2, 15 cwts.; No. 3, 10 cwts.; and No. 4, 8 cwts. of ore per fm.

LADY BERTHA.—J. Metherell, Dec. 9: There is nothing new at Moyle's engine-shaft, nor either of the ends in the 30. The eastern end in the 20 is become for the present unproductive, owing to a cross head, or fissure, which has crossed the end, and very frequently in this mine makes courses of ore on the opposite side. Robins's winze, in the bottom of the 20, west of Moyle's shaft, and about 14 fathoms east of the western end, has very much improved; the lode is about 1½ ft. wide, and on the south part carrying a leader of rich ore, 6 in. wide, worth full 1 ton per fathom. The winze is about 6 fathoms deep, and it certainly looks well for the 30 when it is driven back under it. The western end in the same level is not so good, now worth about 3½ tons per fm. This end should have been reported in last week's Journal 5 tons per fathom instead of 5l. Nothing else new throughout the mine.

LLANDUDNO.—The west cross-cut in bottom is now extended 35 yards from shaft; this distance, as compared with the cross-cut above, and the appearance of the ground, having spots of ore in the beds, lead us to think that we are getting near the strings; we have, therefore, taken four men from the east cross-cut in the same level, which I regret to say is looking very hard and unkindly for ore at present, and have put them with the others in the west cross-cut, to push it as fast as possible; but it looks so kindly that we have scarcely a doubt of having ore in it before long; is so very cavernous that we shall open the level 9 ft. wide, which we conceive will not only expedite the driving, but will also be advantageous in laying open a larger extent of the strings when we get them, which certainly cannot now be long. The 80 yard level, south from the shaft, by six men, is much the same as last reported, having stones of rich carbonate, and mixed ores, of copper, but not sufficient to value: we have good hopes of this place as it extends south. The remaining two of the six men from east cross-cut have been last month rising through the great shale bed in the old workings above, on some strings east and parallel with the great bunch of ore; this is a small but important trial. The winze and stopes in the 56, north of Vivian's shaft, continue much as usual, and are about paying the cost of working. At Trewhitt's there is nothing to report. The 110, 120, and stopes are without material alteration; the former is set to six men at 42s., and the latter at 47s. 6d. per ton of picked ore, and 10s. per ton for the small. The pitches are, most of them, set again at the former high tributes.—Dec. 7.

MERLLYN.—J. Trevethan, Dec. 10: The lode at the shaft is 4 feet wide, and most promising in its appearance; we have seen to-day some nice spots of lead in it, intermixed with carbonate of lime and clay.

MOLLAND.—T. Bennetts, Dec. 9: We have commenced stoping the back of the 20 east, by four men, where the lode is worth 6*l*. 10s. per fm.; set to stope 2 fms., at 3*l*. per fm. The shaftmen have fixed a ladder road, and are now easing down the shaft, preparatory to drawing stuff. We shall commence to erect the shaft tackle, &c., as soon as possible, in order that no time may be lost in drawing stuff with the engine. The stack is up to its height, and the masons will finish pointing it down to-day, so that we shall soon finish the heaviest part of our surface work. The engine works very well, and keeps the water easily.

NANTEOS AND PENRHIW.—H. Boundy, Dec. 7: Saturday last being our settling-day, the following bargains were set:—The 20 fm. level to drive east of Penrhiw engine-shaft, by two men, 1 fathom, at 120s. per fathom; the lode here is very hard and wet, composed principally of spar and mundic, with a small mixture of lead ore. The 20 to drive west of ditto, by six men, 4 fathoms, at 110s. per fathom, the lode here is 15 in. wide, yielding some good saving stuff, and looking very promising. To stope in back of this level, by four men for the month, at 40s. per fathom; the lode yields 8 cwts. of ore per fathom. To stope in the bottom of the 10, east of the winze, by two men for the month, at 45s. per fathom; the lode yields 7 cwts. of ore per fathom. To stope in the back of this level, east of the winze, by four men for the month, at 30s. per fm.; the lode yields 20 cwts. of ore per fathom. To stope in back of ditto, by four men for the month, at 50s. per fathom; the lode yields 10 cwts. of ore per fathom: these two stopes are very wet, and the air very confined. The 10 to drive west, by two men, 3 fms., at 30s. per fathom; the lode here is small and poor, but a change is shortly expected. To stope in the back of the adit east, by four men for the month, at 45s. per fathom; the lode yields 7 cwts. of ore per fathom. The 36 to drive east, by two men, 3 fms., at 70s. per fathom; the lode here is yielding a little saving stuff. The winze sinking below the 30 I have set to two men, to strip down a piece of lode standing north of ditto, per bargain, 5*l*. To stope in back of this level, by six men for the month, at 40s.; the lode yields 12 cwts. of ore per fathom. To stope in back of ditto, by two men, at 35s. per fathom; these two men will be engaged for a week or ten days in putting in timber and securing old workings. To stope in back of the 26, by four men for the month, at 35s. per fathom. To stope in back of ditto, by two men for the month, at 32s. 6d. per fathom; the lode in these two stopes averages about 15 cwts. of ore per fathom. At present our surface operations are going on well, and should the weather prove favourable, no doubt but our returns will be increased.

NETHER HEARTH.—W. Vipond, Dec. 6: We continue to get some good samples of ore from the level forehead, though not of any considerable value. In the drift above, at the bottom of the limestone, there is a little ore, and some appearance of a flat of ore to the south. I have no fear but we shall have a good mine again in the limestone as soon as we are fairly clear of the clayey slide that intersected the vein lately. The stopes are poor at present, as they are coming up to the slide before mentioned; the flat to the same is about as last reported. From indications in the present ends (both level and drift) there is no doubt but in another month or two we shall be able to increase our returns considerably from this mine. The level is now coming into ground which cannot fail to prove rich, as it will shortly intersect the strings which made such a fine bunch of ore in crossing the vein lying nearly parallel with this on the north. We have completed 8 tons of ore for another sale, and have more in progress.

NEW CROW HILL.—Dec. 5: The lode in the rise above the 22 fm. level is very kindly, with lead and mundic. The stopes for jack continue good, and the tribute pitch is producing lead. A rise in the back of the 15 fm. level has prevented our doing much on the north lode where recently intersected by the cross-cut, but we hope to see more of it, and to report next week. The ground in all the bargains set yesterday has improved since the last setting, and they were in consequence set at lower rates. We have sent off this week a cargo of blende, about 80 tons, and a cargo of mundic, about 110 tons.

NORTH BASSET.—T. Glanville, Dec. 9: At Grace's shaft, sinking below the 72, the lode is yielding 2 tons of ore per fm. In the winze sinking below the 72 the lode is yielding 1 ton of ore per fm. In the 82 the lode is yielding 2 tons of ore per fm. In the 42 the lode is yielding 2 tons of ore per fm.

NORTH DOWNS.—Wm. Johns, J. Grenfell, Dec. 8: We are glad to say that the 30, east of the engine-shaft, is greatly improved in the past week; in the present end we have two regular branches of ore, with a horse of killas 2½ ft. wide between them; the lode altogether will yield 2 tons per fathom, worth about 7*l*. 10s. per ton. In the 30 west, same level, the lode is large and promising, but not sufficient ore to value. In the winze sinking below the 20, east of the engine-shaft, we have also two separate branches similar to the end remarked above, and opening tribute ground. In the 20, east of Bennett's shaft, we have about 2 fathoms to drive to reach the winze sunk below the 10; when this piece of ground is holed it will be a great advantage for discharging the stuff from the tribute pitch now working at 7s. in 1*l*. The 10 cross-cut, south of the engine-shaft, towards Coal-yard and other lodes, is in a beautiful stratum of mineral ground, and is progressing most satisfactorily. The rise in the back of the deep adit level will soon be holed to set a tribute pitch, and all other operations continue without alteration. Upon the whole, we would beg to remark our prospects are much improved since last reported.

NORTH FRANCES.—P. Hosking, Dec. 5: The lode in the 48 west is 3 ft. wide, worth 10*l*. per fm. for tin. The lode in the 48 east is 5 ft. wide, with some good stones of yellow ore. The lode in the 36 west is 4 ft. wide; there is more water coming from it; I hope we are not far from the cross-course. The ground in Eales's shaft is still hard, I hope it will be better as soon as we get the lode in the shaft. The stope in the back of the 48 west is looking very well, worth 10*l*. per fm. The tribute ground is much the same.

NORTH TAVY.—R. Williams, Dec. 7: I have to-day sampled the lode in the 20, and find it worth 760 lbs. of tin per 100 sacks; this is from the stope west of Gill's shaft; other parts of the lode, in this level, produce from 100 lbs. to 400 lbs. for 100 sacks for a great length. Nothing is wanted here but stamping-power to put the mine in a good position, as ultimate success is guaranteed. The wheel-pit is marked out, and the wood cleared away for the incline.

— E. S. Codd: Satisfactory negociations are progressing with the lords for the use of the water. The level of the proposed leet has been taken, and arrangements have been made for building or purchasing a wheel, the erecting of stamps, and providing all requisites for laying out the tin floors with the utmost dispatch and economy.

NORTH TINCROFT.—W. Teague, J. Andrew, J. Cook: In the 154, driving west of Tyrie's engine-shaft, the lode is 2 ft. wide, producing saving work for tin. In the 151, driving east of shaft, the lode at present is disordered. In the 142, driving east of shaft, the lode is 4 ft. wide, and worth 10*l*. per fm. for tin and copper. In the 142, driving west of shaft, the lode is at present poor. In the 100, on East Pool lode, driving west of cross-cut, the lode is 1 ft. wide, producing good stones of ore. In the 60, driving east of Willoughby's shaft, the lode is 2 ft. wide, at present poor.—Highborrow Lode: In the 173, driving east of Martin's east shaft, the lode is 4 ft. wide, and worth 25*l*. per fm. for tin. In the 173, driving west of shaft, the lode is 3 ft. wide, and worth 10*l*. per fm. for tin. In the 162, driving east of shaft, the lode is 3 ft. wide, and worth 15*l*. per fm. for tin. In the 152, driving east of shaft, the lode is 3 ft. wide, and worth 10*l*. per fm. for tin and copper. Our stopes for tin and copper are somewhat improved since last reported.

NORTH TRELETHER.—Wm. Tom, E. Ellison, Dec. 9: Since our last report we have cut the lode in the winze from No. 2 level at a depth of 4½ fms.; the branch is here 1 foot wide, 5 in. of which is solid heavy grey ore, worth, from a fair assay of a sample of 2 cwts., 14*l*. 10s. for copper, and containing also 24 ozs. of silver to the ton of ore. We are stoping in No. 2 level with six men, at same price as last month, the branch of grey ore gradually increasing in size and solidity as we gain in depth towards the hill. We have now scarcely any expense in dressing, the ore being simply ground up and put to pile, in which state the above assay was taken.

NORTH WHEAL ROBERT.—James Richards, Dec. 10: In the Boundary winze, sinking below the 42, west of the trial shaft, the lode is worth 1½ ton of ore per fm. There is no alteration worthy of note in any other part since my last report.

PEDN-AN-DREA.—Capts. Carpenter, Delbridge, and Thomas, Dec. 5: In the 90 east, on Martin's lode, the lode is much of the same character as for the last fortnight, producing good stones of tin; to the north of the sparry course it is a very promising looking lode; the stopes behind this end are producing about the same average quantity of tin-stuff, but, owing to the low price of tin, it is not worth so much per fm. We are progressing satisfactorily with the bob-plat in the 68. We have nearly completed Cobbler's shaft to the 40, and in the early part of next week we shall commence to draw from that level. Our tribute stopes are much the same as last week, yielding a fair quantity of stamping stuff for tin.

PEMBROKE AND EAST CRINNIS.—J. Dale, G. T. Trewren, Dec. 8: You will perceive by the setting that the ground in the 162 cross-cut, south from Reid's shaft, is more favourable than for some time past; present price for driving being 15*l*. per fm. In the 162 north no change to notice since last report, still letting out a quantity of water. In the 112 there is no alteration to notice. In the 100 end, east from Smith's shaft, the lode will produce from 1 ton to 1½ ton of ore per fm., and is letting out plenty of water; the lode in the stope in the back of this level, east from winze, will produce 2 tons of ore per fm. of fair quality; in the back of same level, west from winze, the lode will produce 1½ ton of ore per fm.; in the winze sinking in the bottom of this level the lode is worth full 1½ ton of ore per fm., of good quality. In the winze sinking in the bottom of the 90, east from Smith's shaft, the lode has recently improved in appearance, and will yield 1½ ton of ore per fm. of fair quality.

PENTRE LYGAN.—A. Francis, jun., Dec. 10: Woodland's shaft is down 25 fms.; the bottom of which has just entered the soft chert, which now takes all the water; this circumstance will materially lessen our monthly cost, and places us in an independent position to cross-cut the veins. One of the tribe, judging from the workings westward, is close to the shaft; I, therefore, hope shortly to report favourably of this concern.

PROVIDENCE.—A. Anthony, Dec. 9: The lode in the 125, west of Higgs's shaft, is 2 ft. wide—poor. The lode in the 75, west of Higgs's shaft, is 2 ft. wide—poor. The lode in the 75, east of Higgs's shaft, are 2 ft. wide, worth 35*l*. per fm. The stopes in back of the 75, east of Higgs's shaft, are 4 ft. wide, worth 115*l*. per fm. The stopes west are 5 ft. wide, worth 95*l*. per fm. The cross lode in the 75, east of Higgs's shaft, are 6 ft. wide, worth 80*l*. per fm. The stopes in bottom of the 65, east of Higgs's shaft, are 4 ft. wide, worth 75*l*. per fm. The stopes in the bottom of the 65, east of Comfort lode, on a limb of the carbona, are 18 in. wide, worth 7*l*. per fm. The lode in the 35 west is small and poor. At Dunstan's shaft we have completed the skip-way, ladder-road, &c., from the 24 to the 35, and have resumed sinking under the latter level, where the lode is 2 ft. wide, worth 5*l*. per fm. The lode in the 12 is disordered at present.

REDMOOR.—Thos. Taylor, Dec. 7: Since last report, we have had a light bar of ground in the 20 north on the lead lode, which has wrung up the lode a little, but it is still producing good lead, and the ground appears to be changing again. The 70 west, on Kelly Bray lode, is still producing stones of ore, but the lode is small. We expect to communicate from the 70 to the 80 within a day or two, which will make a good pass to take away the 70 stuff. The men employed in making the 80 railroad have completed their former bargain (the 22, at 20s. per fm.), and have taken to complete the remaining part to the count-house shaft, at 32s. 6d. per fm. No other alteration underground. The wet weather has a little retarded the progress of our masons, but we hope to get up our masonry by the end of this week; the carpenters are preparing the roofing, &c., with all speed.

RIVER TAMAR (Limited).—J. Cock, Dec. 8: We have had no change to notice during the past week; the operations are being carried on with energy.

ROSEWALL HILL AND RANSOM UNITED.—P. Roach, Dec. 9: Since the 2nd inst., we have built 4 ft. on the walls of the steam whim-house (which is the height of the side walls), cleared 7 fms. of adit, and cleared and secured 2 fms. of the engine-shaft, making it good to the back of the adit, and are now drawing the water out of the level, which will, I hope, in a few days be thoroughly drained, so that we shall be able to inform you what state it is in, and to employ more labourers in clearing and securing the adit through the mine, through which we shall discharge a large portion of the water which is now being pumped to surface.

ROSEWARNE CONSOLS.—J. Richards, Dec. 5: Our engine-shaft is down 3 fms. under the 10; sinking by eight men, 10 fms. stent, at 8*l*. per fm., and I hope to have the same completed in six weeks from this time. In the 10 end, east of engine-shaft, the lode is 2½ ft. wide, worth from 1 to 1½ ton of copper ore per fathom; the lode is harder than usual, and I think it will hold so until we reach the east shaft, on the grey ore lode, which is 20 fms. further east. The stope in the back of the 10 is without alteration, worth 2 tons of copper ore per fathom. In the cross-cut, driving north from Lambo lode, towards the engine-shaft, the ground is still favourable for driving. I hope to sample from 30 to 35 tons of copper ore on Dec. 15. Our surface works are progressing satisfactorily.

ROUND HILL.—J. Knecbone, Dec. 9: I have been through the mine to-day, and find the appearances the same as noticed in my last report. On Monday last we sampled the November parcel of ore, computed 80 tons.

SITHNEY WHEAL BULLER.—S. J. Reed, Dec. 7: Since my last monthly report, our success in clearing the adit has been more than could have been anticipated, considering the difficulties encountered. During that time we have cleared the adit level 246 fms., rid through 60 fms. of shafts, and spilled two others, having firmly secured the same with timber. In the past week we had a great quantity of water in ridding the last shaft, which has prevented our reaching the lodes so soon as expected; this is only a temporary delay. I have taken the men from the 60 east to assist in forwarding the work in this part of the mine, which is being pushed on with the greatest vigour. In the course of a few days their respective places will be resumed with the usual number of men. The new south lode in the 60 east is without change to notice, producing a little tin, with stones of copper ore, but not enough to value.

SORTRIDGE CONSOLS.—J. Richards, Dec. 10: Hitchins's Engine-shaft: In the 62 east and west there is no alteration. In the 50 east the lode is composed of quartz, mundic, peach, capel, and a little ore. In the 50 west the lode is 3 ft. wide, yielding a little ore of good quality, and is promising. The lode in the eastern winze, sinking below the 50 east, is worth for length of sink ½ ton of ore per fm., and in the western winze 1½ ton of ore per fm. The lode in the stopes in the back of the 50 fm. level is worth 3 tons of ore per fm. In the rise in the back of the 40 west the lode is worth ½ ton of ore per fm.

— Captain R. Jackson, Dec. 10: At Hitchins's engine-shaft the men are engaged in cutting plat in the 74 fathom level. In the 62 fm. level east the lode is 4 ft. wide, with good stones of ore throughout; in the same level west the lode is 3 ft. wide, with good stones of ore. In the 50 west the lode is 3 ft. wide, with good stones of ore throughout, looking very promising for further improvement. In the stopes in the back of the 50, east of the engine-shaft, the lode is worth 3½ tons of ore per fm. In Jeffery's winze, sinking below the 50 east, the lode is 4 ft. wide, worth for length of sink (9 ft.) 1 ton of ore per fm.; in Chapman's winze, sinking below the same level east, the lode is 4 ft. wide, worth for the length of sink (9 ft.) 1½ ton of ore per fm. In the rise in the back of the 40, west of the western shaft, the lode is 2½ ft. wide, worth ½ ton of ore per fm. In the cross-cut south in the 40, west of cross-course, no lode has yet been met with. There is no alteration in any other part of the mine.

SOUTH BEDFORD CONSOLS.—J. Phillips, Dec. 10: There is no alteration worth noticing at Red Whim-shaft or the 62 since last report.—South Lode: In 36 east the lode is very promising, and yielding a little more ore. The lode in the winze sinking in the bottom of the adit level will produce ½ ton of ore per fm.

SOUTH CRENVER.—J. Delbridge, E. Chegwin, Dec. 7: In the 94 west the lode is 5 in. wide, yielding stones of ore. In the 74 west, 54 west, and 34 west, the lode is 3 ft. wide, producing 1 ton per fm. In the 74 east the lode is 9 inches wide, yielding stones of ore. In the 84 east the lode is 18 in. wide, yielding stones of ore. The 54 rise, 44 rise, 34 stopes west, and 34 east of rise, are each yielding 1¼ ton per fathom. The 94 stopes, west of 94 winze, are yielding 2 tons per fm. We purpose sinking this winze towards the 105 with all speed by six men, and from present appearances it is likely to yield a good amount of ore. In the 74 east the end seems to be in the killas, and is much eased; we expect ere long the lode will open, and become more productive. Our tribute is without change to notice.

SOUTH DOLCOATH AND CARNARTHEN CONSOLS.—Wm. Roberts, Dec. 8: In the 75 west the cross-course has been intersected, which is letting out water sufficient, I hope, to enable us to get through it in the 50 and 40 fm. levels.

SOUTH LADY BERTHA.—W. Goss, Dec. 10: We have completed the shaft to the adit, which is about 5 fms. deep; the lode is from 18 in. to 2 ft. wide, composed of peach, quartz, mundic, and copper ore, of the most promising character. At the depth of 5 fms. it is more than could possibly be expected. For your satisfaction, and all interested, I send a box of ore from the lode as broken this morning. Some of the men are now engaged in stoping down the side of the level, to allow room for filling the stuff; and I find a winze sunk in the bottom of the adit; its depth I cannot say, but it appears to be sunk on a promising lode, and I shall now put the men to clear up this winze, when I shall ascertain its depth and character; this is on the south lode. On the north lode, I am informed by the men who last worked in the 40 fm. level, we shall find some good piles of copper ore when we fork the mine, which will enable us to pay the cost of working the mine, if not leave a profit. The character of each lode will warrant the most sanguine expectations. I have no fear but that it will be as productive in ores as the Lady Bertha Mine, for the lodes are of the same character, and the surrounding strata and geological features the same.

SOUTH WHEAL TOLGUS.—The north part of the lode in Michell's engine-shaft, sinking below the 110, is 15 in. wide—poor; the same will apply to the south branch, which is 3 in. wide. The ground in the 110, east from Michell's, driving south, is moderately easy for driving; we have not cut the south lode yet in this end. The lode in the 110, driving west from Michell's, is 16 in. wide, consisting of mundic, jack, and some good ore, yielding ¼ ton per fm. In the north part the south branch is 6 in. wide, yielding ¼ ton of ore per fm., this is a kindly end. The lode in the 100, west from Michell's, is still split into two branches, and the horse of killas is 4 ft. wide; in our last report we said we thought the horse was likely to wear out shortly, but it does not appear to be so now: the south part of the lode is 15 in. wide, yielding 1½ ton of ore per fm. The north part is 10 in wide, producing 1 ton of ore per fm., this is a very promising end. In the winze sinking in the bottom of the 11, west from Michell's, the lode is 15 in. wide, yielding about 1 ton of ore per fm. We have put one of the pares of stopemen from stoping the back of the 100, west from Michell's, to strip down a piece of the branch, about 5 fms. behind the 100 end, where the branch is 18 in. wide, and will produce 2 tons of good ore per fm. The lode in the two stopes in the back of the 100, west from Michell's, will average about 2 tons of oreper fm. each. The lode in the 90, west from Michell's, is 15 in. wide, consisting of muncic and spar, and producing stones of ore, and has a promising appearance. The lode in the winze sinking in the bottom, and about 6 fms. behind the above named end, is 2 ft. wide, producing 1½ ton per fm. The lode in the 78, west from Michell's, is 1 ft. wide—unproductive. The lode in the stope in the back of the 78, west from Michell's, is 16 in. wide, producing 2 tons of ore per fm.—South Lode: We consider that we have cut the south lode in the 100, east from Michell's, driving south, and we set the 100 to drive east on it yesterday. The lode in the 90, east from Michell's, is 2½ ft. wide, yielding 1½ ton of ore per fm., and is kindly for improving; the lode in the stope in the back of the said level, and about 10 fms. behind the end, is 18 in. wide, yielding 1½ ton of ore per fm. The ground in the 78 cross-cut, south from Michell's, and also in the 78, west from Michell's, driving north, is moderately easy. The lode in the 78, driving east, is 20 in. wide—unproductive. The lode in the 54, driving east from Michell's, is 20 in. wide—unproductive. The lode in the 54, west from Morcom's, is 15 in. wide—poor; we hope to communicate this end to the 54, east from Michell's, next week, when we shall turn Morcom's engine idle, and let the water run back to Michell's, to be discharged by Michell's engine. We have suspended the 40, east from Morcom's, the lode being small and unkindly.—South Branch: The lode in the 30, west from Morcom's, is small and poor. The lode in the 20, west from Morcom's, is 20 in. wide, consisting of quartz, mundic, and good stones of ore, and promising in appearance. The lode in the 10, west from Morcom's, is 15 in. wide, and rather in a disturbed state by being crossed by a limb of the cross-course.—Dec. 8.

ST. AUSTELL CONSOLS.—R. H. Williams, Dec. 5: The ground in the 45 cross-cut south, at Dawson's shaft, is very favourable for driving; set at 45s. per fathom; we have passed through several large droppers, which, I believe, will form lodes deeper. In the 35 we have a hard run of ground gone across the lode; this, I believe, is partly owing to our having cut the lode so near the elvan. I believe, as we get more into the main part of the lode, it will considerably improve. In the 25 our stopes are much as usual; the western part of the mine is looking very well; large quantities of lode are opened out in the 25 and 15 that can be worked at a profit as soon as tin resumes a fair price, which certainly the miners have not at present. The mine throughout is just as for some time past, but I have suspended several stopes owing to the price of tin.

TAMAR SILVER-LEAD.—T. Foot, Dec. 9: The sinking the engine-shaft is progressing satisfactorily. The 215 end is still in disordered ground; in this level, driving north, there has been no lode taken down since last report; we have three stopes working in the back of this level, producing as follows:—No. 1, 8 cwts.; No. 2, 6 cwts.; and No. 3, 7 cwts. of lead per fm. In the 205 south the lode is 2½ ft. wide, and will yield 16 cwts. of lead per fm.; the lode in the end driving north, in this level, is 2 ft. wide, producing the same quantity of lead as when last reported on—12 cwts. per fm. There are seven stopes working in the back of this level, producing respectively 18, 13, 12, 10, 5, 8, and 7 cwts. of lead per fm. During the past week we placed some men to take down a piece of eastern ground in the 190, for the purpose of ascertaining if the lode now being driven on north in the 205 held up, and we are happy to say that our anticipations are realised, the lode being 3 ft. wide, yielding 6 cwts. of lead per fm.; we shall not drive this end at present, as a stope in the back of the 205 is within a short distance of the 190, which will be continued as high as the back of the 120; after this is accomplished we shall commence driving north of this stope on the course of the lode. The 205 end has been driven 30 fms. north on this lode, and is still driving. The stope in the back of the 190 is producing 8 cwts. of lead per fm.

TAVY CONSOLS.—R. Williams: There is nothing new in the prospects of this mine since my last. We have cleared out the 80, west of the shaft, where Capt. Goss reported a winze sunk on the course of a good copper lode, but I regret to say there is neither winze nor any other excavation at this point, except the level driven west for about 9 fms. and north from the end about 5 fms.; the lode in which the level has been driven is scarcely worthy the name, being very small, and perfectly unproductive. We hope to sample for November about 40 tons of ore.

TEES SIDE.—R. Bray, Dec. 4: At Metal Band level, in the rise for air, the vein is disordered by tuft, or "donk," being thrown in; easy to work, but poor for lead. The same is now extending two-thirds down into the level below, causing it also to be poorer, but all the stuff has to be washed over. The washers have finished the ore at Tees Side, having made up about 3 tons of good ore, and they now go on washing at Metal Band again. On Monday the stamps will be fairly at work on the heaps laid aside for them for some years past, and if the weather only keeps open the washers will soon have another sampling ready. All is now going on very satisfactorily, fitting up the floors, pits, &c.

TRETOIL.—R. Rich, Dec. 10: In the eastern adit iron air-pipes have been substituted for wood; there is now a good supply of air for driving the end, &c. The lode in the eastern end is 1½ ft. wide, the leading part of which—6 in. wide—will produce 1 ton of yellow, grey, and black copper ore per fm., worth 10*l*. per ton; the end is being driven at 10s. per fm. The tin stopes in the back of the intermediate level are producing work of good average quality. We are in a position now to stamp more work than can be calcined in the ovens. We have at present very little doubt that the lode which is being stoped here is a distinct lode, going east and south of the iron lode, and south also of the tin lode, on which our principal operations have hitherto been confined, if so, it may prove a part of great importance. The intermediate level is being driven east of these stopes, by six men, to prove it. The iron lode in the back of the shallow level, for 10 fms. in length, will average 9 ft. wide, solid magnetic iron, and will produce 30 tons of ore per fm.; the lode in the breast in the western end of this back is 7 ft. wide, and will, we have no doubt, be found to continue at least 10 fms. further west to a footway shaft which was sunk through a course of iron 5 to 6 ft. wide; the raising of this iron at present prices cannot fail to give us good profits. The dressing of the copper ore and jack from the new lode in the eastern adit is being proceeded with, and is proving equal to our expectations. We are stamping the copper elvans, purchased at the Bodmin United Mines sale, with eight heads of stamps; these elvans are close to the stamps, and we calculate they will give us a profit of 30*l*. or 40*l*. per month. We expect in two or three months to have a sampling of copper ore and jack from the eastern adit and from the stamps' dressing-floors; we also expect to have an increased quantity of tin for sale this month. Our prospects in the various departments were never better than at present.

TREMOOR CONSOLS.—H. B. Grose, Dec. 5: The operations towards the re-working of this mine are progressing in a very satisfactory manner. The water-wheel, 42 ft. diameter 3 ft. breast, pitwork, flat-rods, capetan, shears, &c., are all delivered on the ground, and the carpenters are getting on with their work for refixing it. The excavation of the ground for the wheel-pit is completed, and the masons are progressing satisfactorily with building walls for the wheel, the stone for which is a kind of porphyry, of great size, and is being supplied by the contractor in sufficient quantities to keep the masons continually at work. The shaftmen have completed the cutting down of the engine-shaft to the adit level; in doing which they have taken down a piece of the lode 2 ft. 6 in. wide, composed of gossan, quartz, mundic, and stones of copper ore of good quality, intermixed with green persipitate, and malachite ore, indications that augur well for a good and productive lode in depth; and I have no doubt in my mind but that we shall have a good course of ore when we get the shaft down where the lode forms a junction with the south lode, at about 6 fms. below the present bottom, and I verily believe, if the last company had carried out my recommendations to them, they would by this time have had a good mine. I consider it will take eight weeks from this time to get the necessary machinery to work, after which time the mine will shortly give every shareholder great satisfaction, and will convince the last proprietors of their error in not carrying out the recommendations they had given them, instead of quarrelling amongst themselves and stopping the mine.

TREVELYAN.—John D. Osborn, B. Gundry, Dec. 5: The engine-shaft is sinking below the 50, and the ground just as last reported. There has been no lode taken down this week in either of the ends on Richards's tin lode, or on the Park lode in the 50 east. Next week we shall take down the lode in each of these levels, and will, in our next report, give you the particulars of its appearance and value. The tribute department of this mine is just as usual.

TREWEATHA.—T. Richards, W. Rowe, Dec. 9: The engine-shaft is down 5 fms. below the 70. The 70, south end, is worth 4*l*. per fathom. The north end is worth 2*l*. per fathom. The 60 north is producing some saving work. The winze sinking in the bottom of the 60 north is worth 5*l*. 10s. per fathom. In the 50 north there is no change. The stopes are producing much the same as for some time past.

TYWARNHAILE.—J. Dale, Dec. 4: We have cleared and repaired the adit 300 fms., which is now in good order to the engine-shaft. The sumpmen have cut down and timbered the engine-shaft 10 fms., put down 30 fms. of ladders, and are now engaged in cutting ground for the V bob, which will be complete this week, and shall be ready for dropping the pitwork in a fortnight. The timberman is now repairing the railway-shaft for drawing. We have two pares of tributers working in back of adit, at 13s. 4d. in 1*l*., and one pare at 10s. in 1*l*., and 53s. per fm. for stoping—breaking fair quality work. The old halvan tributers are now busy stamping—as they have a good supply of water—at a tribute of 13s. 4d. in 1*l*. We have sent off 100 tons of mundic, and are still raising more daily. We hope to have 30 or 40 tons of copper ores to sample at the end of this month. The bob-cylinder and condensing work of the engine are fixed, and would have been ready to work in three weeks had the boilers been repaired, which will take us five weeks to finish. The whim engine-house we shall commence to build to-morrow, and shall get on with all other necessary work with as much dispatch as possible.

UNITED MINES (Tavistock).—J. M. Champion, Dec. 9: The engine-shaft is sunk 8 ft. below the 36 fm. level, and the ground favourable for sinking. The lode in the 36 is worth 20*l*. per fm. for tin. I have set nine pitches, at 50*l*., standard; average tribute 10s. in 1*l*.; also the 36, to drive east from the engine-shaft, by six men, 3 fms. certain, at 7*l*. 10s. per fm. I must give you to understand that we are carrying this level from 7 to 8 ft. wide, otherwise the price would not be so high.

VALE OF TOWY.—Thos. Harvey, S. Harper, Dec. 8: In the 60, at Clay's engine-shaft, we have driven a cross-cut east about 7 ft., and intersected the lode, which is a strong champion lode, 3 ft. wide, composed of barytes, gossan, and lead, producing of the latter 5 cwts. per fm. The lode in the 50, north of this shaft, is 4 ft. wide, producing 1 ton of lead per fm.; from this end to Bonville's shaft, which is about 23 fms., we anticipate to be one of the best pieces of ground that has yet been opened in this mine; in the same level, south of Field's shaft, the lode is 7 ft. wide, of which we are only carrying about 4 ft. of the western part, which will produce 6 cwts. of lead per fm.; the lode in the 40, south of this shaft, is 1½ ft. wide, producing 7 cwts. of lead per fm. In No. 1 winze, in bottom of said level, the lode is from 6 to 7 ft. wide, producing some good stones of lead, but not sufficient to value. The lode in No. 2 winze, sinking in bottom of said level, north of Clay's shaft, is 1½ ft. wide, producing 5 cwts. of lead per fm. In sinking Bonville's shaft below the 40 the lode is 4 ft. wide, producing from 18 to 20 cwts. of lead per fm. We calculate this shaft will be down to the 50 by the end of the present week, when we shall cut a plat and commence driving by six men at each end, north and south, with all possible speed. The lode in the 40, north of said shaft, is 2½ ft. wide, as last reported, producing 5 cwts. of lead per fm. All other parts of this mine are without alteration since our last report.

WEST BASSET.—W. Roberts, Dec. 8: The 75, west of Percy's shaft, is improved; the lode is 4 ft. wide, producing 3 tons of good ore per fm. In the 65, west of ditto, the lode is 4 feet wide, turning out 2 tons of ore per fm. The rise in back of the 52 produces 1 ton of ore per fm. Other parts are without alteration. Percy's whim-engine-house is erected, and the engineers are putting in the engine.

— W. Roberts, Dec. 10: The 75, west of Percy's, will now turn out 4 tons of ore per fm. I think we shall soon have something good in this direction.

WEST PAR CONSOLS.—J. Webb, Dec. 9: The 65 cross-cut is going on just as for some time—the ground still hard. The lode in the 45 end, driving east, is 4 ft. wide, good work for tin and copper: we are passing through a great length of mineralised ground. Our dressing department is getting on well.

WEST SHARP TOR.—Wm. Richards, Dec. 7: We have hauled a small pile of tolerable good work from the cross-cut east of Morris's shaft during the past week, and the more the lode is developed in the bottom level the more cheering are the prospects becoming. I, therefore, beg to recommend for your consideration that the sinking of Morris's engine-shaft be resumed at the end of the present month by the usual good force—six miners and three labourers; I would advise that it be sunk 15 fms. deeper ere we drive again; my price for sinking the next 15 fathoms is 40*l*., or 27*l*. per fathom.

WEST WHEAL JANE.—J. Tregoning, Dec. 5: At the engine-shaft, we have been planking and getting down the whim-kibble in the last fortnight to the 60, and again resumed sinking the shaft; the ground is just as last reported. The end going west in the 50 is a little improved since the last report. In the cross-cut going north we have cut the lode, but cannot yet say much about it, as we have as yet done but very little on it. In the tribute department there is nothing new to notice. We have 3 tons of tin ready for market, but shall not sell it before the end of another week, expecting the price to move up a little. In the last fortnight we have shipped 200 tons of mundic, and next week we hope to ship about 120 tons more.

WHEAL AGAR.—W. Roberts, Dec. 8: In the 60, west of engine-shaft, since the cross-course has been intersected, we have, in driving north and south, broken some splendid stones of yellow ore; but, so far, the lode cannot be seen going west of the cross-course. The tribute pitches in the eastern part of the mine are looking tolerably well. Other parts are without alteration.

WHEAL ARTHUR.—T. Carpenter, Dec. 7: Old Lode: We have driven the 50, west of cross-course, 5 fms., where the lode is looking very promising, and yielding good stones of copper ore. The ground in the 50 cross-cut south is changed very much for the better, and letting out a great deal of water—driven 17 fms. In stoping out the side of the level in the 40 east we find the lode worth 12*l*. per fm. for tin, and looking well towards the back of this level. The lode in the deep adit level west is 2 feet wide, yielding stones of copper ore, and the ground moderate for driving.—North Lode: The lode in Buckingham's pitch in back of adit, 38 fms. west of engine-shaft, is worth 10*l*. per fm.—working by four men, at 8s. in 1*l*. The flat-rod shaft is set to nine men to sink below the 20 fm. level 10 fms., at 12*l*. per fm.

WHEAL CREBOR.—The 24 cross-cut has been driven north 48 fms. in the month: we have met with a small cross-course about 4 in. wide (running 30° east of north, and underlying south-east), composed of quartz and prian, showing spots of mundic and copper ore; my opinion is that if the lode had continued the same underlay as when it was seen in the western part of the mine, and supposing it had also maintained its regular bearing east and west, that we should have cut it about the present point (or end), but the changes referred to are of frequent occurrence, and, consequently, we may have several fathoms more to drive. I cannot give you anything like a correct calculation as to the distance that we have to drive, as upon so long a line and such a depth (which is about 45 fms. perpendiculary) it is impossible to do so. In the north part of the sett we opened on a lode at the eastern extremity of the sett, and west close to Mr. Gill's boundary; this lode I consider to be the Bedford United Mine (Marquis lode). In the eastern part of the sett the lode is 8 ft. wide underlying south 2 ft. per fm., composed of quartz, capel, killas, and prian; at the western extremity, adjoining Mr. Gills land, the lode is 2½ ft. wide, and has produced some as fine rocks of gossan as can be seen, and is a very promising lode; immediately east there is a cross-course, which has so disturbed the country for a considerable distance as to baffle all my efforts to discover it.—North Crebor Lode: Some labourers employed taking up a stope in the bottom of the River Lamburn, for the purpose of draining some land adjoining, laid open this lode, which is 3 ft. wide, yielding stones of mundic (1 cwt. each) and some fine stones of lead ore, which I have in the counting house. I have put two men to open on this lode, about 7 fms. west of the river, where it is 4 ft. wide, composed of capels, quartz, and mundic; I consider this lode to be the same as recently cut by the Crowndale Company in the River Tavy, where it produced some very rich ore, and is, I believe, still being wrought upon by them, I have, however, referred to it in my weekly reports sufficiently, and will not, therefore, enter into more details. There is another lode to which I would also call your attention—that is, the Georgiana lode, which was cut in driving the tunnel of the Tavistock Canal, and is, in my opinion, so promising as to warrant further prosecution. I will here briefly describe the work that has been done, and the character of the lode which has induced me to form that opinion; the lode has been driven on from the Tunnel east about 25 fms., and west 30 fms.; about 20 fms. in length—that is, 10 fms. east and 10 fms. west—have been stoped away in the back of this level, varying in height from 2 to 5 fms.; in bottom of this level east the lode has been taken away for several fms. long, but I cannot tell the depth, as the sink is filled with water and stuff; these workings must have yielded many tons of rich copper ore, as it was all taken by tributers. There is a piece of lode standing in the back of the tunnel 3 fms. long, which I am informed belongs to the Canal Company, which would, at the present standard, pay well for taking away at a tribute of 10s. in 1*l*.; the lode has not been cut through east of where it ceased to pay for stoping, but in places where it is cut into it has a promising appearance, producing mundic and spots of copper ore; in the western levels the lode is much of the same character. This lode is the nearest to the East Wheal Russell lode, at present so productive. I would, therefore, beg to recommend the following work to be done, in order to ascertain if the lode is likely to improve in depth—to take the water and stuff out of the sink, which is nearly opposite to the present productive part of East Wheal Russell; this would probably cost about 10*l*. or 12*l*. I am the more induced to propose this, as in East Wheal Russell the lode in the Tunnel level was not rich, but has greatly improved in the levels below. In conclusion, I beg to say that in laying before you the foregoing I am only actuated by a sense of duty to my employers, believing firmly that the mine possesses all the elements of success, if funds can be found for the prosecution of the same. I should also feel proud, if you should think proper for me to do so, to point out the different points of operation, and all the the lodes that are to be seen in the sett, to any practical man you may please to send to inspect the property.

WHEAL EDWARD.—M. H. East, Dec. 7: North Lode: The 71, east of shaft, is set to six men, at 9*l*. per fm., 2 fms. stent; the ground appears to be changing for the better; there are about 5 fms. to drive at this point to intersect a cross-course, to the east of which, in the level above, a very valuable lode was driven through, consequently we may expect to find an improvement in the lode when this point is reached. No. 7 winze is set to sink below the 62 east by nine men, at 10*l*. per fm., 1 fm. stent.; this

other side of the boundary cross-course, referred to in my last report; which is precisely of the same character as it is in the end east of No. 8 winze, worth about 2 tons of ore per fm.; price per fm. for driving, 5*l.*, stented to hole the ground through. The lode in the 71, west of No. 8 winze, is poor at present, but not likely to continue so long; driving by six men, at 5.. per fm., one month stent. In the 63 west we are driving by the side of the lode, at 8*l.* per fm.; we have about 4 ft. of lode standing at this point, and shall drive about 6 ft. more before we commence taking it down; since the lode began to improve the ground has become much wetter and more troublesome for driving, still I regard this as a very favourable indication.—Tribute: The lode in No. 2, in back of the 63 east, is worth 3½ tons of good ore per fm., and No. 3 is worth 2½ tons per fm. In the 53 east the lode in No. 2 is worth 3 tons per fm., and No. 3 is worth 2 tons per fm. There is nothing worthy of remark in either of the pitches which are working at high tributes, which are two in number.—South Lode: The engine-shaft is set to sink below the 61, by nine men, at 40*l.* per fm., 1 fm. stent; we have sunk about 3 ft. since the lode was last taken down, it appears to be increasing in size, and the water is rising from the bottom of the shaft very powerfully indeed. The 61 is set to drive west by six men, at 5*l.* 5s. per fm., 2 fms. stent; there is a horse of killas in the end about 5 ft. wide, in which the end is being driven: the part of the lode on the north side of the end is about 1½ ft. wide, yielding stones of ore; and that on the south side is about 8 in. wide, with spots of ore.

WHEAL EMMA.—W. Goldsworthy, Dec. 10: At the engine-shaft we have a large lode, with a branch on the footwall 10 in. wide, containing good stones of yellow ore. In the 34 there is no alteration since last week, still opening up tribute ground. In opening out the lode in the 22 we have an improvement; it is producing good stones of yellow and black ore. No alteration in the tributedepartment since my last.

WHEAL GRENVILLE.—G. R. Odgers, Dec. 8: We have not taken down any lode in sinking the engine-shaft this week; but, as far as I can judge of the lode, it maintains its size. I picked into it this morning, and I find the ore continues. I hope to take it down again next week, after which I will write you full particulars. In the 54 west the lode is about 15 in. wide, of ore, quartz, and gossan; the ground is a little stiffer than it was. I broke from the lode to-day some good stones of ore; and if the ground continus stiff, I am of opinion we shall find the lode orey. In the eastern end the part of the lode we are carrying is from 18 in. to 2 ft. wide, of quartz, prian, &c.; this is in a patch of fine ground, which we think, as far as we have seen of this lode, is unusual; consequently, I am anxious for a change of ground, when most likely we shall also find a change in the lode.

WHEAL GUSKUS.—J. Richards, Dec. 7: Saturday last was our setting and pay-day:—Set a winze to sink under the 30, west of Rapson's shaft, on Martin's lode, to four men, at 4*l.* per fm., 3 fms. stent; the lode is 2 ft. wide, with good stones of tin and yellow copper ore. The 30 end to drive east of the cross-cut at Francis's shaft, on Guskus lode; set to four men, at 4*l.* per fm.; the lode is 2¾ ft. wide, with good stones of tin, and letting out a quantity of water; we have opened on this lode about 13 feet. A cross-cut to drive north in the said level, to cut the said lode, 60 fathoms further east; set to four men, at 5*l.* per fathom, 5 fms. stent, or cut the lode. I have placed another pare of men in the 20, to cut the said lode, and I am certain that this is the main lode; I calculate we have 4 fms. to drive to cut it. At this point we have ten tributers working five pitches, at tribute varying from 10s. to 13s. 4d. in 1*l.*

WHEAL HARRIETT.—S. Williams, Dec. 5: We have commenced sinking the engine-shaft with all possible speed. The lode in the 90, east end, is at present small and poor. The lode in the winze sinking below the 74 is poor. The lode in the 74, east end, is 1½ ft. wide, worth 10*l.* per fm. The lode in the winze sinking below the 65 is 1½ ft. wide, worth 12*l.* per fm. The ground in the deep adit cross-cut is rather hard, so our progress is slow at present.

WHEAL MARGERY.—J. Tregoning, J. Benbow, Dec. 8: American Shaft: The sumpmen are now cutting plat, &c., in the 70 preparatory to sinking below this level; the lode at this point is 2 feet wide, worth 20*l.* per fathom for copper. In the 70 east the lode is 2 feet wide, worth 8*l.* per fathom; price for driving 8*l.* In the 70 west the lode is split in branches, producing good stones of copper ore, but not to value; being driven at 7*l.* per fathom. In the 60 east the lode is 2½ feet wide, worth 12*l.* per fathom for copper; now being at 70s. In the 60 west there is a horse of ground still in the end, producing a little ore; being driven at 5*l.* per fathom. In the 50 east the lode is 15 in. wide; still unremunerative. In No. 3 winze, below the 50, the lode is 2 feet wide, worth 6*l.* per fathom for copper; sinking at 5*l.*—Flat-Rod Shaft: In the 20 we have driven north on side lode 9 feet, and have not yet intersected the wall; worth 60*l.* per cubical fathom for tin; cross-cut 2 fathoms wide. The rise in the back of the 30 west is worth 6*l.* per fathom; price for rising 35s. In the stope in back of the adit level west the lode is 5 feet wide, worth 8*l.* per fathom; stoping at 5*l.* The pitches, both in the tin and copper lodes, maintain their similar position.

WHEAL MARY ANN.—P. Clymo, jun., H. Hodge, R. Knapp, Dec. 9: Pollard's shaftmen are engaged in cutting the plat in the 150. The lode in the 140, north of the shaft, is 2 ft. wide, worth 14*l.* per fm.; in the same level south it is 2 ft. wide, and worth 17*l.* per fm. In the 130 north it is 3 ft. wide, and worth 8*l.* per fm.; in the same level south it is 3 ft. wide, and worth 13*l.* per fm. In the 120 north it is 2 ft. wide, and worth 9*l.* per fm.; in the same level south it is 2 ft. wide, and worth 6*l.* per fm. In the 110 north it is 3 ft. wide, and worth 10*l.* per fm.; in the same level south it is 3 ft. wide, and worth 12*l.* per fm.; in the 100 north it is 3 ft. wide, and worth 10*l.* per fm.; in the same level south it is 2 ft. wide, and worth 9*l.* per fm. Clymo's engine-shaft is sunk 12 fms. under the 85. The stopes and pitches are producing much as usual. We sold, on the 28th ult., one parcel of lead ore to the executors of the late Josh. T. Treffry, Esq., computed, 83 tons, at 25*l.* 17s. per ton.

WHEAL MARY EMMA.—Wm. Doble, Dec. 9: We have completed the railway both underground and at surface; also the drawing machine, and commenced hauling the work; the whole of the machinery appears to answer very well. We resumed working in the stopes yesterday, and broke some fine work for tin; the lode is looking well. I expect in another week I shall be in a position to put on another pare of men stoping tin, and as soon as the men tramming have cleared out the work already broken we shall commence clearing up the sink in the bottom of the adit level, where it is stated by the men that there is a good lode. I am happy to inform you, by present appearances, we shall be able to sample a good batch of tin every month, if the weather does not come on too severe.

WHEAL SIDNEY.—W. Edwards, Dec. 10: The western end in No. 5 level, bottom of the engine-shaft, is now extended about 7 fms.; the lode is 18 in. wide, not quite so productive as it has been, but still of a highly encouraging character, and from present appearances likely soon to improve, as we approach the very rich shoot of tin gone down in the level above. Within the last two or three days a great mass of water has evidently come through the lode from the upper levels; a sink in bottom of No. 3 level, about 30 fms. from shaft, having been entirely drained. The eastern end in No. 5 level is extended about 10 fms. from shaft; the lode is about 2 ft. wide, giving some rich work, but on the whole not at present so productive; this level has been subject to great changes, and will probably soon improve again; the character of the ground being precisely the same as it was at the commencement. No material alteration in the other parts of the mine.

WHEAL TALLACK.—J. Smith, Dec. 8: There is nothing new to report this week; everything is going on just as for some time past. We shall take down the lode in the eastern end and at the shaft on Friday. If there is any change to notice I will write. The tribute pitches are still holding good. We commenced stamping yesterday; we have water enough to drive four heads.

WHEAL TEHIDY.—D. Lanksbury, Dec. 9: There has been no change to notice in the mine for the last week. In the 50 fm. level, east and west, the tin lode continues very kindly, producing good work for tin. In the 60 fm. level we have commenced driving south with six men towards the Highburrow lode.

WHEAL TRELAWNY.—W. Jenkin, W. Bryant, Dec. 10: Smith's shaft is sunk 2 fms. 3½ ft. below the 142; the cross-cut in this level is extended east 9 fms. towards the lode. The end in the 132, north of Smith's shaft, is still in alidy ground; the lode in the south end of this level is 1½ ft. wide, worth 7*l.* per fm. We have commenced to sink a winze in the bottom of the 132, south of Smith's shaft, the lode in which is 2½ ft. wide, worth 12*l.* per fm. In the 120, north of Chippindale's shaft, the lode is 2 ft. wide, worth 8*l.* per fm. In the 108, north of Chippindale's shaft, it is 2 ft. wide, worth 13*l.* per fm. In the 98, north of ditto, it is 1½ foot wide, worth 8*l.* per fm.—South Mine: The lode in the 142, south of Trelawny's shaft, is 3 feet wide, worth 8*l.* per fm.; in the same level north we are still driving in killas by the side of the lode. In the 130 south the lode is 3 ft. wide, worth 12*l.* per fm. The stopes and pitches are producing much as usual.

WHEAL TREMAYNE.—R. Williams, John Williams, Dec. 5: At the boundary engine-shaft, sinking under the 113, the ground is clear of spar, and looks congenial for tin; in the same level, east of Allen's shaft, on Allen's branches, the branches are yielding good stones of tin, and the ground clearer of spar. In the 103, east of the same shaft, on Allen's branch, the branch is looking strong, composed of mundic, wolfram, and tin, worth 15*l.* per fathom; the stopes in the back and bottom of the same level are worth, on an average, 14*l.* per fathom. In the winze and stope west of the same shaft, on the same branch, the branch is worth 10*l.* per fathom. In the cross-cut south of the same level, east of the shaft, we have intersected a lode 7 in. wide, composed of flookan and soft mundic. The men are now engaged driving east on the course of the same. Allen's shaft is cut down and secured to the back of the 113; the men will now commence casing the same, and cutting a plat to the bottom. The stopes in bottom of the 73, east of the same shaft, on Allen's branch, are worth, on an average, 7*l.* per fathom.

WHEAL UNION.—T. Glanville, Dec. 9: In the 20, driving east, the south lode is 1 ft. wide, worth 40*l.* per fathom for tin. In the winze sinking below the 20, on the Turnpike lode, the lode is 3 ft. wide, producing strong yellow copper ore throughout. Other parts of the mine are without alteration.

WHEAL ZION.—J. T. Phillips: The ground continues hard in the 80, driving west, on the north lode. In the 65 east, on the main lode, we have had a great deal more fluor-spar than usual, of a very congenial character; it has been spotted with copper ores, and mundic for 3 feet big, and very kindly. In the 30 west the lode is 4 ft. big, composed of spar and mundic, with stones of copper ores; a strong healthy-looking lode. In the cross-cut, towards the south lode, we have favourable ground. In the cross-cut, towards the north lode, the ground is a little harder, driving in the cross-course, west of the engine-shaft.

WILLOW BANK.—J. Sanders, Dec. 8: The water is in fork at the engine-shaft, and the following bargains have been set:—The 30, to drive east, by six men, for the month, at 8*l.* per fm. The 30, to drive west, by four men, for the month, at 8*l.* per fm. The cross-cut, to drive north from the 17, west from engine-shaft, by six men, for the month, at 7*l.* per fm. The 30 fm. level east is extended 7½ fms. from shaft, where the lode is still producing a little lead ore, but not sufficient to set a value on at present, but an improvement is shortly expected. The 30 west is extended 5 fms. from shaft, where the lode is 4 feet wide, letting out a great quantity of water, and has a very promising appearance. The cross-cut is extended 2½ fms. from the side of the level, but it is not yet through the lode. The water is so much increased in the boundary shaft that we are obliged to put in a larger lift.

YARNER.—J. Hampton, Dec. 8: About ten days ago I put the men in the eastern end to drive a cross-cut north, in order to prove whether any more lode was standing in that direction; the result is the discovery of more of the vein, making with the part we had before in the end, 8 ft. big, consisting of quartz, mundic, and yellow copper ore, some of which is coated with black oxide. In sinking the shaft we went through several good branches of ore, with horses of ground standing between them; this being so near the surface is natural; but the cross-cut referred to above has proved that these branches are coming together going into the hill, hence the lode 8 ft. wide, which, with the rise of the hill, is about 18 fms. below surface; the greater part of it is saved for work, and will be dressed: 6 ft. of the lode in length and height for its whole width is worth something like 20*l.* per fm.; and being only 18 fms. from surface needs no further comment. I am not sure that we are through the entire lode yet, and have ordered that the cross-cut be continued a little further. The shaft is being sunk satisfactorily; the ground is better, it is full 4 fms. below the 10, and we shall doubtless have good speed in sinking to the 20.

CLARA.—S. Trevethan, Dec. 10: We have holed the rise in back of the 20 to the bottoms of the old workings, and have drained the water from both mines this day; but, in consequence of the very great settlement of mud, &c., in the above-mentioned bottoms, we are not as yet able to give you much account of it, but hope, in a few days, to send you more satisfactory details. The lode, as far as we have seen, is of a very promising character.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET, London, December 11, 1857.

COPPER.	£. s. d.
Copper wire ..... p. lb.	0 1 2 -1 2½
ditto tubes ..... ,,	0 1 2½-1 3
Sheathing and bolts .. ,,	0 1 0 — —
Bottoms ..... ,,	0 1 0½— 1 1
Old (Exchange) ..... ,,	0 0 10½— —
Best selected.....p. ton	110 10 0— —
Tough cake ..... ,,	107 10 0— —
Tile ..... ,,	107 10 0— —
South American..... ,,	95 0 0-100 0 0
IRON.	per Ton.
Bars, Welsh, in London .	7 10 0— 8 0 0
Ditto, to arrive	6 15 0— —
Nail rods	8 0 0— —
,, Stafford. in London	9 0 0— 9 10 0
Bars ditto	9 0 0-10 10 0
Hoops ditto	10 10 0-10 0 0
Sheets, single	10 10 0-11 10 0
Pig, No. 1, in Wales ...	3 15 0— 4 5 0
Refined metal, ditto.....	4 10 0— 5 5 0
Bars, common, ditto ...	5 15 0— 6 5 0
Ditto, railway, ditto ...	5 10 0— 5 15 0
ditto, Swed. in Lon.....	13 0 0-14 15 0
in stock to arrive	— — —
Pig, No. 1, in Clyde ...	2 13 0— 2 15 0
Ditto, in Tyne and Tees.	2 15 0— 3 0 0
Ditto, forge	2 15 0— —
Staffordshire Forge Pig.	4 10 0— 5 0 0
Welsh Forge Pig	3 0 0— 3 5 0
LEAD.	
English Pig	22 0 0-22 10 0
Ditto sheet	23 10 0— —
Ditto red lead.....	24 10 0-24 15 0
Ditto white.....	27 0 0-30 0 0
Ditto patent shot	26 0 0— —
Spanish, in bond	22 0 0— —
American.....	none.
BRASS (sheets) .....p. lb.	10¼d.-11d.
Wire.....	10¼d.-10½d.
Tubes	12d.-13d.

FOREIGN STEEL.	Per Ton.
Swedish, in kegs	21 10 0— —
,, to arrive	21 10 0— —
Ditto, in faggots	23 10 0-24 0 0
English, Spring	18 0 0-23 0 0
QUICKSILVER .....p. lb.	2 0— —
SPELTER.	Per Ton.
Foreign	24 0 0-25 0 0
To arrive.....	23 0 0-24 0 0
ZINC.	
In sheets.....	35 0 0-36 0 0
TIN.	
English, blocks.....114	0 0— —
Ditto, Bars (in barrels) 115	0 0— —
Ditto, Refined 117	0 0— —
Banca 103	10 0-104 0 0
Straits 102	0 0— (nom.)
TIN-PLATES.*	
IC Charcoal, 1st qua. p. box.	1 13 0- 1 14 0
IX Ditto 1st quality ,,	1 19 0- 2 0 0
IC Ditto 2d quality ,,	1 11 0- 1 12 0
IX Ditto 2d quality ,,	1 17 0- 1 18 0
IC Coke ..... ,,	1 6 0- 1 7 0
IX Ditto ..... ,,	1 12 0- 1 13 0
Canada plates.....p. ton	15 0 0-15 5 0
In London; 20s. less at the works.	
Yellow Metal Sheathing ...p. lb.	10d —
Wetterstedt's Pat. Met.... p.cwt.	2 2 0
Stirling's Non-laminating, or Hardened, Surface Rails..p. ton	9 0 0— 9 2 0
Stirling's Patent Toughened Pigs { Glasg.	— — 5 5 0
Ditto Wales	4 0 0— 5 5 0
Indian Charcoal Pigs in London	— — 7 10 0

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—A further declension in the value of several articles in our market has taken place. The demand for all descriptions of metal continues very limited.

COPPER.—On the 8th inst., at the monthly meeting of smelters, it was agreed to reduce current rates 14*l.* per ton on cake, tile, &c., and 1¼d. per lb. on manufactured, and 1¾d. per lb. on yellow metal, making the present price of cake, ingots, &c., 107*l.* 10s. Sheet and sheathing 12d. per lb., and yellow metal 10d. per lb. The result of this meeting was looked forward to with much anxiety by the trade, for everybody knew that a decline ought to be announced, but whether the smelters, for the sake of opposition, would maintain prices, was still doubtful. However, for once, they have adopted a lenient course, and reduced the price to that which it should have been some few months since. There have been large arrivals of foreign from America, Australia, &c., doubtlessly shipped here on account of the high prices prevailing, compared with other markets, and which we are led to believe will greatly operate now against the smelters, as it is already offered considerably under the reduced rates of English. The smelters might easily have foreseen that in the present state of things, to quote high prices, the market would eventually be overburdened with large stocks of foreign; and as the qualities are of a very superior kind, a large quantity being Lake Superior and Burra Burra, the preference will, of course, be given by buyers to these qualities, especially as there is a great advantage in price. Burra Burra is reported to have changed hands at 100*l.* per ton.

IRON.—The enquiries for rails have slightly increased, no change, however, is named in quotations; makers of bars have not given way beyond last week's prices, and more disposition is evinced on the part of merchants to purchase at, or within a little of, current rates. Specifications for immediate delivery are in request, and, probably, buyers effecting contracts might have a turn in their favour, complying in this respect with the requirements of the ironmasters. The constant suspension of mercantile houses—and some few have been mentioned to-day—have a very injurious effect upon our market; for sellers, having little or no confidence in merchants, scarcely like to afford the usual terms of payment, or allow receipts to go from them without receiving the cash in exchange; consequently, with small houses, of limited capital, and the difficulty of raising advances upon shipping documents, tend very much to restrict exportation. Swedish bars, nominally, from 13*l.* to 14*l.* per ton. In Scotch-pigs there has been but little alteration, the fluctuation in prices not exceeding 6d. per ton. Mixed numbers were quoted from 51s. 6d. to 52s., cash, g.m.b., f.o.b. in the Clyde.

LEAD.—There has been a decline of about 5s. per ton, but so little business has been transacted as to scarcely establish a price. Sheets may be quoted at 23*l.* 10s.

SPELTER.—In this article there has been a great fall, a parcel having changed hands at 23*l.* 10s. Holders do not quote such low prices; but it is not unlikely but what it might be met with, if a firm offer for a quantity were taken into the market. For arrival it could be purchased at from 23*l.* to 23*l.* 10s. Zinc is quoted at 35*l.* per ton.

TIN.—English is unchanged. Foreign has declined; several parcels of Banca having been sold at from 103*l.* 10s. to 104*l.* Straits, 102*l.*, nom.

TIN-PLATES.—Manufacturers have made no alteration in quotations.

STEEL.—Swedish keg has been sold at 21*l.* 10s., hammered; rolled quoted at 18*l.*

GLASGOW, DEC. 10.—There has been a heavy feeling in our market this week, and in spite of a large shipment return, 12,000 tons against 4900 tons last year, the price has rather declined. Warrants have changed hands, at from 52s. 6d. to 51s. 9d., and we closed to-day with sellers at the latter price. No. 1, Gartsherrie, is quoted at 60s. 6d.; No. 1, g.m.b., 52s. 6d.

LIVERPOOL, DEC. 10.—Since the date of our last report no change of moment has been experienced in our market for iron. There appears to be, if anything, rather more enquiry, but the actual business continues to be exceedingly limited. Prices uniformly favour buyers, makers generally being disposed to concede a little to obtain orders. In Scotch Pig-iron there is no new feature to report; business in the article being at a complete standstill. The shipments for the week are extraordinarily large for this season of the year, being 12,107 tons, against 4956 tons for the corresponding week of last year. The price shows no variation since last report. For Tin-plates a little more enquiry is observable, and prices remain without alteration. The recent fall in the price of Tin had been already anticipated in the reduced prices of Tin-plates, so that no further effect may be looked for in this respect. A reduction in the price of Copper was announced on Tuesday, to the extent of 1¼d. per lb. on manufactured, and of 14*l.* per ton on unmanufactured. This reduction is scarcely so much as was expected, 2d. per lb. being regarded as the probable fall. Lead is in but moderate request, at easier rates. The following are the quotations:—Iron: Merchant bar, 7*l.* to 7*l.* 10s. per ton.—Tin: Common block, 114*l.* per ton; common bar, 115*l.*; refined block, 117*l.*—Tin-plates: Charcoal, IC, 32s. to 33s. per box; coke, IC, 27s. to 27s. 6d.—Lead: English sheet, 24*l.* 10s. per ton; English pig, 23*l.* 10s.—Copper: Cake and tile, 107*l.* 10s. per ton; best selected, 110*l.* 10s.; sheathing and bolt, 1s. per lb.—Yellow metal sheathing, 10d. per lb.—Steel: Blistered, 30*l.* to 40*l.* per ton; spring, 18*l.* to 24*l.*; cast and shear, 50*l.* to 60*l.* per ton.

MINES.—This week has been particularly dull, the amount of business extremely limited, and until after Christmas it is generally thought we shall not have much improvement. There have been a few buyers in the market, especially for Basset, West Seton, West Caradon, Trelawny, Mary Ann, and a few others; but as buyers expect in times like these to get everything a great bargain, the prices offered for shares in most cases have not been such as to tempt sellers, and consequently very little has been done. Copper has fallen 1½d. per lb., but as the standard declined for many weeks previously this may be considered more as consequent upon it than as denoting any further fall in the price of ores. Tin is down again, and the tin mines generally must be seriously affected in their profits. Lead does not seem to have fallen so much in proportion to other metals.

Basset shares have been 140 to 150, buyers; shares in the South Mine, 5, and in demand. East Basset, 91 to 93, but not much doing in them; West Basset, 22 to 24; North Basset, 12 to 12½. Mary Ann shares have been largely dealt in, but the price receded to 47½, 48½; at the meeting, on the 15th, a dividend of 2*l.* 5s. per share is expected. Trelawny shares have latterly been much more in request, and advanced from 22¾ to 23½, 24; this is owing to a winze sinking in the 132 being good for lead, and likely to open out a large quantity of good ore ground. Wheal Margaret shares had been flat at 44, but improved to 46, buyers; Grambler and St. Aubyn, 82½; Sortridge Consols, 1¾; Lady Bertha, ⅞, flat; Wheal Grenville, 1½ to 1¾; West Grenville, 4s. 6d. to 5s. 6d. Alfred Consols remain flat, at 13½ to 14; the dividend at the meeting was 4s. per share. East Alfred shares took a sudden jump to 3 early in the week, but soon declined again, and left off at 2 to 2½, call paid; West Alfred Consols, 32 to 35; Great Alfred, 4¼ to 5. An improvement in Vale of Towy caused an enquiry for shares, but the price keeps at ¾ to ⅞; Wheal Wrey shares have been enquired for at low prices, 5½ to 5¾; Ludcott, 1¼ to 1½; North Frances, 9 to 10; Wheal Margery, 7; Rosewarne and Herland, 4 to 4¼; Wheal Emily, 5; Redmoor, ½ to ¾; St. Day United, ⅞ to 1; Great Baddern, ¾ to ⅞; West Frances, 16 to 18; South Frances, 220 to 230, but nothing doing; West Seton, 300, buyers; Dolcoath, 250 to 275; Wheal Edward, 6¾ to 7½, and more in request; Mendip Hills, 1¾; Great South Tolgus, 14½ to 15: East Russell, 3 to 3¼, and have been much sought after; Hingston Down, 4 to 4¼, not so firm again; Pendeen, 2¾; South Caradon, 340; Herodsfoot, 7 to 7½; Devon Buller, ½ to ⅝; Wheal Kitty (Lelant), 16 to 17; Craddock Moor, 37½ to 40; East Tamar, ⅝ to ¾; Tolvadden, 5½ to 6; Great Wheal Vor, 1 to 1¼; Kelly Bray, 1½ to 1¾.

Mining Exchange Official List of transactions during the week:—

SATURDAY, DEC. 5.—Lady Bertha, 17s. to 17s. 6d.; Pendeen, 2¼ to 2⅜; Providence Mines, 72; West Fowey, 6¼; West Grenville, 4s. 4½d., 4s. 7¾d., 5s., 5s. 6d., 4s. 9d.; Wheal Mary Ann, 45; Wheal Trelawny, 23¼.

MONDAY.—Great Vor, 24s., 24s. 6d., 25s., 27s. 6d.; Lady Bertha, 16s. 6d., 17s. 6d., 17s., 17s. 6d.; Sortridge Consols, 1¾. 18s. 9d.; West Grenville, 4s. 9d., 5s. 3d., 4s. 9d., 5s., 5s. 6d., 4s. 9d., 5s. 3d.; Wheal Edward, 6¾; Wheal Mary Ann, 47½ to 48.

TUESDAY.—East Rosewarne, 16s. 6d. to 17s. 6d.; Great Hewas, 17s. 6d. to 19s.; Lady Bertha, 17s., 17s. 6d., 19s., 16s., 16s. 6d., 17s.; Mendip Hills, 34s. to 35s.; South Cuddra, 16s. 6d. to 17s. 6d.; Wheal Grenville, 32s. 6d., 34s., 35s.; Wheal Mary Ann, 48; Wheal Wrey, 5¼ to 5⅝.

WEDNESDAY.—East Russell, 2*l.* 16s. 3d. to 2*l.* 18s. 9d.; W. Grenville, 4s. 6d., 5s.

THURSDAY.—East Russell, 3 1-16 to 3 3-16; Pendeen, 2¾; Sortridge Consols, 30s. 6d., 31s. 6d., 32s. 6d., 33s. 9d.; Wheal Wrey, 5 5-16 to 5⅜.

FRIDAY.—Great Wheal Vor, 19s. 6d., 20s., 24s.; Kelly Bray, 1½, 32s., 1⅝; Lady Bertha, 17s., 18s., 16s. 6d., 17s.; Pendeen, 2¾, 2⅞, 3; Sortridge Consols, 1 11-16 to 1¾; Vale of Towy, 17s. 6d. to 20s.; Wheal Trelawny, 24.

On the Stock Exchange, the following business has been transacted:—

SATURDAY, DEC. 5.—West Basset, 21⅛, ex div.; Wheal Edward, 7; St. John del Rey, 10¼; Linares, 8⅜.——Transactions, though not officially marked: Vale of Towy, ¾ to ⅞; Wheal Edward, 6¾ to 7⅛; Sortridge Consols, 1⅞; East Russell, 6¾ to 3; Pendeen, 2⅛ to 2¼; Wheal Trelawny, 23⅛.

MONDAY.—Great Wheal Alfred, 4⅛; Wheal Trelawny, 23⅛; St. John del Rey, 10⅛ to 10¼; Cobre Copper, 39, 39⅛, 38½; Linares, 8¼; Mariquita, ⅝.——Transactions, though not officially marked: Wheal Edward, 7; Sortridge Consols, 1⅞; East Russell, 2⅜; Alfred Consols, 13⅛ to 14; Wheal Mary Ann, 48 to 49; Wheal Trelawny, 23⅛ to 23¾.

TUESDAY.—St. John del Rey, 10¼, 9¾, 10⅛; Cobre Copper, 38⅛; Linares, 8⅛; United Mexican, 3¾.

WEDNESDAY.—North Wheal Basset, 12; Cobre Copper, 38 to 38⅛.

THURSDAY.—Great Wheal Vor, 1⅛; North Wheal Basset, 12; Sortridge Consols, 1⅜; Wheal Edward, 7 to 7⅛.

FRIDAY.—Alfred Consols, 13⅜ to 13½; West Basset, 22 to 21; Wh. Edward, 7, 7⅛.

At Redruth Ticketing, on Thursday, 4095 tons of ore were sold, realising 22,514*l.* 4s. The particulars of the sale were—Average standard. 123*l.* 14s.; average produce, 6⅔; average price, 5*l.* 10s.; quantity of fine copper, 273 tons 1 cwt. The sale at Truro, on Thursday next, will be 4339 tons.

At Swansea, on Tuesday, 1327 tons of copper ore will be sold, including Cobre, Chili, Peninsular, Spanish, Great Barrier, Namaqua, London Slag, Adelaide, Bampfylde, South Australian, Wildberg, Genoa, and Bahama.

The arrivals at Swansea include—from Garrucha, 250 tons of copper ore to order; from Coquimbo, 105 tons of copper regulus and 457 tons of copper ore; from San Sebastian, 90 tons of zinc ore.

At Alfred Consols Mine meeting, on Monday, the accounts showed—Balance last audit, 791*l.* 4s. 5d.; ore sold (less lord's dues, 1-18th, 258*l.* 13s. 5d.), 4397*l.* 9s. 5d.; materials sold, 28*l.* 1s. 5d.; debts received, 5*l.*=5221*l.* 15s. 3d.—Mine cost, Aug. and Sept., 2326*l.* 4s. 2d.; doctor and club, 29*l.* 6s. 1d.; subsist advanced, 235*l.* 10s.; merchants' bills, 986*l.* 16s. 4d.: leaving balance in favour of adventurers, 1643*l.* 18s. 8d. A dividend of 1024*l.* (4s. per share) was declared, which, after payment, would leave balance to next account, 619*l.* 18s. 8d. Capts. M. White, T. Trelease, and T. Hosking, reported that the main lode in the 120, east of Davey's engine-shaft, is worth for copper ore 40*l.* per fm. This lode in the 110 is worth for copper ore 20*l.* per fm.; and in the 110, west of No. 2 winze, 60*l.* per fm. All the other parts of the mine are just as for some time past.

At United Mines meeting, on Dec. 2, the accounts showed—Balance last audit, 1779*l.* 15s. 8d.; ore sold (deducting 270*l.* 0s. 3d. lord's dues), 7751*l.* 7s. 9d.; sundries, 241*l.* 17s. 1d.=9773*l.* 0s. 6d.—Labour cost, Sept. and Oct., 3315*l.* 13s. 6d.; tributers balances, 1543*l.* 16s. 2d.; merchants' bills and coals, 3098*l.* 7s. 3d.; on account of Consols loss, 1715*l.*: leaving balance in favour of mine, 100*l.* 3s. 7d. Capt. John Davey reported upon the state and prospects of the mine. The profit on the two months' working was 35*l.* 7s. 11d.

At Pendeen Consols meeting, on Dec. 5, the accounts showed—Balance lass audit, 389*l.* 7s. 4d.; mine cost, four months ending Nov., 650*l.* 13s. 7d.; merchants' bills, 205*l.* 8s. 4d.=1245*l.* 9s. 3d.—Calls received, 705*l.* 16s.; merchants' bills, 539*l.* 13s. 3d. A call of 3s. 6d. per share was made. Captains M. Annear and Wm. Eddy reported upon the prospects of the mine. Captain Eddy says they will have, at the end of this month, 20 tons of ore dressed, but he hopes the shareholders will not sell any for a month or two, as the expense of sampling, &c., is as much for 20 tons as for 50 tons. Capt. Blight was appointed assistant agent.

At Boscean Mine meeting, on Dec. 4, the accounts showed—Balance last audit, 1636*l.* 0s. 8d.; tin sold, 4063*l.* 10s. 1d.; sundries, 12*l.*=5711*l.* 10s. 9d.—Wages cost, 2963*l.* 19s. 6d.; merchants' bills, 709*l.* 18s. 9d.; coals, 208*l.* 15s.; stamps rent, Stannary assessments, &c., 21*l.* 2s. 10d.; lords' dues, 162*l.* 10s.: leaving balance in favour of mine, 1640*l.* 4s. 8d. Capts. J. Carthew, R. Berryman, and James Trezise's report was read, and it was considered that the prospects of the mine were never more favourable.

At Lelant Consols meeting, on Nov. 27 (Mr. Wm. Bazely in the chair), the accounts showed—Balance last audit, 450*l.* 15s. 8d.; mine cost, 1329*l.* 16s. 10d.; merchants' bills, 512*l.* 5s. 3d. = 2292*l.* 17s. 9d.—Calls received, 1024*l.*; tin sold, 923*l.* 2s. 3d.: leaving balance against the mine, 345*l.* 15s. 6d. A call of 1*l.* per share was made. Captains James Williams and B. Champion reported favourably upon the prospects of the mine; and Capt. Wm. Richards writes that since those reports were written the 60, driving east, has much improved.

At Kelly Bray Mine meeting, yesterday (Mr. Peter Watson in the chair), a resolution was passed to absolutely forfeit 180 shares, upon which a call of 2s. 6d. per share remained unpaid. It was stated that the proceedings were in conformity with the rules and regulations of the cost-book of the company.

At Wheal Annie Mine meeting, Nov. 17, the accounts showed—Mine cost, April to September, 98*l.* 15s. 1d.; doctor and club, 18s. 6d.; merchants' bills, 13*l.* 4s. 10d.; postage and receipts, 2*l.* 5s.; cost due on relinquished shares, 12*l.* 5s. =127*l.* 8s. 5d.—Balance last audit, 7*l.* 9s. 7d.; calls received, 116*l.* 10s.: leaving balance against adventurers, 3*l.* 8s. 10d. A call of 2s. 6d. per share was made. Mr. F. Vincent, jun., was appointed surgeon of the mine. Capts. J. Vivian and H. Skewes reported that they had sunk under the adit on Wheal Annie lode about 5 fms., and had found the lode to improve in depth, being in the bottom 1½ foot wide, and producing very good stones of grey and yellow copper ore.

At Wheal Ellen meeting, on Wednesday, the accounts showed—Balance last audit, 356*l.* 15s. 11d.; mine cost and merchants' bills, June, July, Aug., and Sept., 1424*l.* 13s. 1d.=1811*l.* 9s.—Calls received, 384*l.*; ore sold, July and Aug. (less dues), 777*l.* 18s. 3d.: leaving balance against adventurers, 649*l.* 10s. 9d. A call of 12s. 6d. per share was made.

At Devon and Cornwall United Mines meeting, on Monday (Mr. S. S. Bastard in the chair), the accounts showed—Ores sold, and carriage, 1391*l.* 4s. 7d. —Balance last audit, 92*l.* 3s. 11d.; mine cost, Sept., 384*l.* 12s. 6d.; Oct., 407*l.* 1s. 6d.; account of new buildings, 50*l.*; bank interest, commission, &c., 47*l.* 13s. 9d.: leaving balance in favour of adventurers, 409*l.* 12s. 11d. The committee of management were re-elected. Capt. T. Neill reported that the mine was looking very well.

At Wheal Polmear meeting, on Dec. 3 (Mr. J. Drew in the chair), the accounts showed—Balance from last audit, 588*l.* 8s. 10d.; carriage of ore, 5*l.* 9s. 10d. =893*l.* 18s. 8d.—Labour cost, July, Aug., Sept., and Oct., 363*l.* 4s. 6d.; merchants' bills to end of Oct., 68*l.* 1s. 7d.: leaving balance in favour of mine, 462*l.* 12s. 7d. Capt. Dalley reported that during the past four months the adit level had been driven west, on Crooked lode, 20 fms., and also 37 fms. west, on Ploughshare lode, but which had split up into branches. There was, however, more water letting out, which leads to the belief that a more settled lode will be met with shortly. About 18 tons of copper ore were now at surface.

At Great Wheal Baddern meeting, on Tuesday, the accounts showed—Balance last audit, 81*l.* 15s. 10d.; ores sold, 607*l.* 17s.; calls received, 101*l.* 12s.= 791*l.* 4s. 10d.—Mine cost and merchants' bills, and sundries, 689*l.* 18s. 11d.: leaving balance in favour of mine, 101*l.* 5s. 11d. Capt. John Jenkin reported that since their last meeting they had sampled about 60 tons of good quality lead ore, and they purposed sampling again on the 22d. The mine had never been in so satisfactory a course of working, and the prospects for ore are excellent.

At the General Mining Company for Ireland meeting, on Monday (Mr. R. Carroll in the chair), the accounts showed—Balance last audit, 1587*l.* 6s. 8d.; ore sold, 1190*l.* 4s. 2d.; sundries, 310*l.* 4s. 7d.=3087*l.* 15s. 5d.—Mine cost, 2034*l.* 0s. 4d.; bills payable, 155*l.* 7s. 11d.; sundries, 478*l.* 16s. 7d.: leaving balance in favour of the mine, 419*l.* 10s. 7d. The directors and agent's reports were read and unanimously adopted, and thanks were voted to the Chairman.

At Vale of Towy Mining Company meeting, yesterday (Mr. T. Field in the chair), the accounts showed a balance in favour of adventurers of 1085*l.* 0s. 7d. The proceedings, which are reported in another column, terminated with a vote of thanks to the Chairman.

At the Great Wheal Vor United Company meeting, to be held on Wednesday next, the accounts to Oct. 31, to be presented, will show—Balance last audit, 1035*l.* 12s. 3d.; calls received, 4361*l.* 15s.; tin sold, 8627*l.* 6s. 10d.; mundic sold, 2s. 12s.; amount of loans, 7850*l.*=22,726*l.* 6s. 1d.—Mine cost, Aug., 3696*l.* 1s. 2d.; Sept., 3750*l.*; Oct., 3570*l.* 13s. 10d.; merchants bills, August, 2029*l.* 6s. 1d.; Sept., 11/6*l.* 16s. 8d.; October, 1468*l.* 7s. 10d.; lord's dues, 696*l.* 1s. 9d.; Sithney Wheal Buller, on account of calls, 409*l.* 7s. 6d.; on account of leases, 52*l.* 6s. 10d.; interests and discounts, 181*l.* 15s. 7d.; London expenses, office rent, auditors, &c. 477*l.* 8s. 5d.: leaving balance in favour of adventurers, 5360*l.* 1s. 6d. The amount of liabilities not included in the balance-sheet is certified by the auditors to amount to 21,504*l.* 10s. 7d., against which there was due on the first call 243*l.*, and on the second 12,154*l.* 5s.

Grambler and St. Aubyn continues to improve, the 36 fm. level being now worth 18*l.* per fm.; the 24 is worth 12*l.* (having already been driven through a long course of ore, worth on an average 30*l.*); and the 12 is in a fine gossan, with stones of ore. The north lode, in the adit and the 12, is composed of a fine gossan; and the 24 is now commenced to be driven towards it. There are nine pitches at work, at tributes varying from 3s. 9d. to 4s. in 1*l.* This week 50 tons of ore, of the same quality as the last, were to be sampled.

At the Pontgibaud Mining and Smelting Company meeting, at Paris, on Oct. 30 (Mr. Paul Bontoux in the chair), the accounts showed a total loss upon the year's working of 4568*l.* 17s. 8d. It was resolved to issue a number of obligations, sufficient to produce for the company the sum of 20,000*l.* (500,000 frs.) These obligations, of the nominal amount of 20*l.* (500 frs.), will bear interest at the rate of 6 per cent. per annum, payable half-yearly. One-twelfth, at least, of the number of obligations issued will be repaid at par each year, to be drawn for by lot. The first drawing will take place at the general meeting of 1860 at the latest, but the company reserves to itself the right to anticipate that period, as also to make additional drawings by lot, if thought expedient. The obligations may be to bearer, or nominative, at the option of the subscribers. Under date Dec. 7, the agents write that everything throughout the mine is looking well.

At the East India Coal Company meeting, on Monday (Sir T. Herbert Maddock in the chair), the accounts showed a balance in favour of the company of 21,255*l.* 15s. 10d. The proceedings, which are reported in another column, terminated with a vote of thanks to the Chairman.

The directors have, since the meeting, received the following letter from their agents in Calcutta:—We have now the pleasure to advise having concluded the contract with Government for two years' supply of coal. We estimate the result to the company of this contract as very favourable. This the following figures will show:—

350,000 maunds (or 25,000 tons), say estimated to cover all charges, at 52 a. per maund ..... Co.'s rs.	120,312	8	0
Contract for conveyence of same	119,435	0	0
Total	239,747	8	0
350,000 maunds (or 25,000 tons), at our contract rates with Government	363,125	0	0
Probable balance of first year's contract, in Co.'s rs.	123,377	8	0
" in £	12,337	15	0

The Alten Mining Association have their report from Oct. 31 to Nov. 14:

RAIPAS.—The lode in the 20 stope has again taken its original course and underlay; it continues about the same size, and produces 2¼ tons of good quality ore per fathom. The 10 stope yields 4 tons of ore per fm., and the lode holds out equally promising indications as when last reported. The ground in the shallow adit workings continues in an unsettled state, but the lode yields a fair quantity of ore, and the ground we are leaving in the roof can be turned to a good account after the communication is formed with the shaft from surface, where we are making good progress, and also laying ones some very promising ground.

OLD MINE.—In Bergmester's we have stoped about 5 fms in length, where, instead of the lode striking off in the country (as appearances first led us to expect), it made a turn, and has continued in about the same course as the slide, with 4 or 5 feet of greenstone between; it is now about 7¼ ft. wide, composed of calcspar and quartz, with patches of ore throughout. During the last fortnight the lode has deteriorated in No. 1 working, particularly in the north stope, where it is smaller and much more quartzose than usual. The lode in No. 2 winze is somewhat improved, being over 3 ft. wide, and frequently produces good stones of ore. In the shallow adit the lode is 2 ft. wide, and presents much the same appearance as when last reported.

UNITED MINES.—The pitch under the 40 continues poor; but there being a large piece of promising ground in this place, we are unwilling to leave it until it has been farther explored.

MICHELL'S.—The cross-cut from Michell's shaft is now about home to the Lobby workings, but as yet we see no signs of the lode. The vein alluded to in my last proved larger than first expected, being from 4 to 6 in wide, with a good branch of ore on the west side. We have opened some feet beyond it, but find nothing, with the exception of some strings of ore, which appear to belong to the vein before mentioned. The pitches are rather poor at present.

THOMAS'S.—We are still greatly inconvenienced with the surface water, and have not made much progress since our last, but the weather at present is more settled and dry. The branch of yellow ore in the bottom still holds good, and looks promising.—CHAS. TRELEASE.—Estimated produce for October:—

Mines.	Ore.	Per cent.	Copper.
Raipas	43	6½	2·795
Old Mine	85	5	4·250
United Mines	6	6	0·360
Michell's	4	6	0·240
Thomas's	3	10	0·030
Total	141		7·945

The Quenangen Mining Association have advices to Nov. 4:—

Estimated produce for Oct.:—Lode E: Dredge, 28·00 tons, 9 per cent., 2·52 tons copper. North Lode: Prills, 2·50 tons, 20 per cent., 0·50 tons copper.

NORTH LODE E.—In the 20 end west the lode contains a rib of yellow ore, varying from 4 to 9 in. big; and as soon as a little more room has been excavated, we intend to separate it from the attle in the mine, the intense frost at surface preventing any but the larger pieces from being picked out. The vein is hard, and slow for driving, but the feeder of water is less, and easier kept under than we had anticipated. The 10 end west has very materially improved since last report, the lode being worth 1¼ ton of ore per fm., consisting of small stones of yellow and purple ore disseminated throughout it. The stone is also easier, and we are making better progress with the driving. In the winze under the 10 the rich deposit of ore has this month suddenly contracted to a string, scarcely 1 inch wide; but during the last few days it has again expanded considerably, so that we now have grounds to hope that the end of the bunch is still distant. The stope west from the winze has this month produced much less ore than usual, the miners having been employed in the roof near the side of the adit level, where the lode is small and less productive. The stope east from the winze, has likewise been working at a disadvantage this month, from the necessity of our leaving a portion of the lode to support the walls.

SOUTH LODE E.—In the driving towards lode D, the lode, which has always been remarkably fluctuating in this end, is now quite poor, but the rock is easy, and we are making good progress. We have this month dispatched one cargo of ore to the smelting-works, and hope in the course of November to have another ready at the shipping-place.—P. WILSON.

The Mariquita and New Granada Company have advices to Oct.:—

SANTA ANA MINES: Returns for Sept., $15,701; cost, $10,312.—MARMATO MINES: No profit and loss account received. The superintendent says, "The mine is far from discouraging, and we hope the effect of the increase of the surface water will be observed in the returns." Oct. 9, 68 stamp heads at work: PURIMA MINES: Returns for Sept., $5230; cost, $1408.

The Lusitanian Mining Company have advices to Nov. 27:—Basto's Lode: The ground in Taylor's shaft, sinking below the 28, continues hard. The lode in the 28, east of Taylor's shaft, is 3 ft. wide, of hard quartz, with a branch on it 6 in. wide, composed of prian, soft spar, and spots of copper ore. We have 6 feet to drive to get under Oleviera's winze, where the lode is 2½ feet wide, worth 2¼ tons per fm. The 28, west of Taylor's shaft, is 3¼ feet wide, composed of quartz and prian, with a small branch of ore worth ½ ton per fm.; the lode in the rise in the back of this level is worth 1 ton per fm. The winze sinking from the 18, west of Taylor's shaft, produces good stones of ore. The lode in River shaft is without alteration. The adit level, driving east of Pinto's shaft, is composed of quartz, prian, flookan, spots of lead, stones of copper ore, and a little mundic. The stopes, Nos. 1, 2, and 3, are the same as usual, producing from 1 to 2 tons per fm.—Mill Lode: The stopes in back of the 8 produce about 1 ton per fm.—House Lode: The lode in the winze sinking from the adit level is 1½ ft. wide, composed of quartz and capel.—Carvalhal: The lode is 1 ft. wide, composed of mundic and quartz, and the ground about it is of a pretty killas.

The Fortuna, Linares, Royal Santiago, Wildberg, Strathalbyn, Worthing, Port Phillip, and English and Australian Mining Companies' reports will be found in p. 857.

The Foreign Mine Share Market has been extremely flat during the week. Considerable heaviness has been exhibited in Cobre shares consequent on the low price obtained for their recent heavy sales of copper ore; new machinery is now about to be put to work, when the returns must be larger. St. John del Reys have been flat, from the expectation that they will be called in for registration under the Limited Liability Act—10 to 10½; the same cause has acted on Anglo-Mexican Mint shares—price 14¾ to 15, ex div. Advices have been received from the Worthing Mining Company, and the prospects are very encouraging. Chancellorsville shares do not, upon the repeated promises made by the directors, rally in price; and it seems that the time was come for something more definite in the results at the works at Rodeham. New Grand Duchy of Baden, 1, and no sellers; being a premium of 10s. Enquiries have been made for General Mining Association (Nova Scotia), but not to any extent. English and Australian Copper Company, during the week, have been largely dealt in. Other foreign descriptions were quiet.

Our Sheffield correspondents (Messrs. E. Smith and Son) report that there is considerable demand for Chapel Dale Mine shares at an advance, in consequence of their having got some very fine specimens of lead ore, and the mine has a very encouraging appearance: the shares are quoted to-day, 3¾ to 4¼ prem., but no sellers. Brightsides freely offered at 4; Eyam shares a shade flatter, and offered at 5; North Derbyshire have declined, in anticipation of a call, and have changed hands at 1¾; Prince of Wales shares firm at 2. A fair business has been done in banks, gas, and water shares, at the late reduced quotations, and there is altogether more confidence that the worst is over, though the staple trade of the town is still much depressed.

In an early Journal we shall publish a highly interesting and valuable paper, on the "Stream Tin Works of Porkellis Moor," by Mr. George Henwood, whose works on Carnon and other streams of a similar nature we published some years ago. Mr. Henwood's perfect acquaintance with the subject of tin streams, as evidenced by his former publication, will ensure a graphic and correct description of this hitherto unnoticed but amazingly rich locality. Mr. Henwood has been engaged for several days past in the investigation, the result of which we shall very shortly lay before the public.

Mr. Thomas Curtis, of the firm of Messrs. Curtis and Harvey, has been elected a director of the Anglo-Mexican Mint Company, in the place of Mr. J. Diston Powles, who has resigned.

Mr. A. Tregoning will leave London, by the Royal Mail Steamer, the first week in January, to inspect the operations at the mines of the Clarendon Consolidated Mining Company of Jamaica. Mr. Tregoning is also engaged by Messrs. Martin Wilson and Co., of Liverpool, to inspect for the Wheal Jamaica Company.

THE COAL TRADE.

The following is a statement of the delivery of coals, &c., in the port of London during the month of November:—

	Ships.	Tons.		Ships.	Tons.
Newcastle	398	133,029	Scotch	12	1,986
Seaham	67	21,322	Welsh	37	12,535
Sunderland	227	78,364	Yorkshire, &c.	60	6,087
Middlesbro'	36	9,054	Liverpool	—	—
Hartlepool & West Hart.	237	68,502	Small and cinders	3	555
Blyth	7	1,732			
Total				1110	333,166
Total imported in Nov., 1856					304,612

Comparative Statement of 1856 and 1857.

Imported from January 1 to Nov. 30, 1856	Ships	9923	2,839,004 tons.
Imported from January 1 to Nov. 30, 1857	"	9364	2,782,691 "
Decrease of ships and tons		559	46,313

THE RAILWAY COAL TRADE.

Monthly statement of coal and coke brought by railway and canal within the London district, during the month of November:—

Railways.	Tons cwt.	Railways.	Tons cwt.
Great Northern	50,419 7	Eastern Counties	7,522 11
North-Western	41,530 8	Great Western	4,629 0
South-Western	986 16		
Total by railway in Nov., 1857			105,088 2
Coals by railway in Nov., 1856			113,936 13
Coals by canal in Nov., 1856			2,646 15

Comparative Statement of 1856 and 1857.

Coals by railway from January 1 to Nov. 30, 1856	1,144,257 9
Coals by railway from January 1 to Nov. 30, 1857	1,106,752 12
Decrease in the year 1857—railways	37,504 17
Coals by canals from January 1 to Nov. 30, 1857	23,633 10
Coals by canals from January 1 to Nov. 30, 1856	23,398 5
Increase in the year 1857—canals	235 5

THE COAL TRADE—COLLIERY STATISTICS.

BY ROBERT HUNT, ESQ., F.R.S.

Inspectors of Coal Mines, and Districts under Inspection:—

MATTHIAS DUNN, Newcastle-on-Tyne—Northumberland, Cumberland, and Durham north of the Wear.

JOHN J. ATKINSON, Bowburn, Durham—Durham south of the River Wear in its course from the sea at Sunderland up as far as Harraton near Chester-le-Street, and from thence westward, the line of the Pontop and Shields branch of the North-Eastern Railway.

JOSEPH DICKINSON, Manchester—North and East Lancashire, called the Manchester district.

PETER HIGSON, Manchester—West Lancashire, the Wigan and St. Helen's districts, and North Wales.

CHARLES MORTON, Wakefield—The West Riding of Yorkshire.

JOHN HEDLEY, Derby—Derby, Nottingham, Warwickshire, and Leicester.

THOMAS WYNNE, Stone—North Staffordshire, Shropshire, and Cheshire.

LIONEL BROUGH, Wolverhampton—South Staffordshire and Worcestershire.

HERBERT MACKWORTH, Clifton, Bristol—Monmouthshire, Gloucestershire, Somersetshire, and Devonshire.

THOMAS EVANS, Dowlais—South Wales Coal Field.

ROBERT WILLIAMS, Edinburgh—Scotland, eastern division, including East Lanarkshire, Fifeshire, Clackmannshire, Haddingtonshire, Edinburghshire, Linlithgowshire, East Stirlingshire, &c.

WILLIAM ALEXANDER, Glasgow—Scotland, western division, including Ayr, Dumfries, Dumbarton, western division of Stirling, and part of Lanarkshire.

Summary of Coal Produce of the United Kingdom for 1856:—

Durham and Northumberland	Tons 15,492,969
Cumberland	913,891
Yorkshire	9,083,675
Derbyshire and Nottinghamshire	3,293,325
Warwickshire	335,000
Leicestershire	632,478
Staffordshire and Worcestershire	7,305,500
Lancashire	8,950,000
Cheshire	754,327
Shropshire	752,100
Gloucestershire, Somersetshire, and Devonshire	1,530,000
North Wales	1,046,500
South Wales	8,919,100
Scotland	7,5 0,000
Ireland	136,635
Total produce of the United Kingdom in 1856	Tons 66,645,450

Gross Produce of the Coal Mines of Durham and Northumberland:—

Coals exported to foreign countries	Tons 3,165,112
Coals exported, 209,393 tons, equal to	418,796
Coals sent coastways	5,440,431
Coke ditto 9548 tons, equal to	19,096
Coals and coke sent inland by railway	2,257,000
Coals to London by railway	164,534
Coals and coke used in ironworks	2,298,000
Colliery consumption	130,000
Local consumption for manufacturing and general purposes.	1,600,000
Total	Tons 15,492,969

COALS USED IN IRONWORKS.—Throughout South Staffordshire it was generally computed that for the production of 1 ton of pig-iron about 2½ tons of iron ore, 1 ton 5 cwts. of limestone, and 3 tons of coals. This includes coals for steam-engines, calcining the ore, &c. If we take the produce of pig-iron at 754,000 tons, there will then be 2,262,000 tons used in this manufacture. Three tons more of coals are required for all the operations of converting a large portion of this into bar, &c., so that at least 4,000,000 tons of coal are used annually in the processes of iron manufacture only.

The NORTHERN COAL TRADE has, in a period of 15 years, nearly doubled in value. Although there has been a large general increase, the development of the coke trade, and the consumption in iron-works, consequent upon the opening out of the Cleveland ironstone, has mainly contributed to produce this remarkable extension.

COLLIERY ACT CONVICTION.—Mr. R. Poole, manager of Mr. Z. Botfield's Old Park Coal and Ironworks, was summoned before the magistrates at Wellington, by Mr. Wynne, inspector of mines, for neglecting to provide, at the Little Eyton Pit, near Lawley Bank, a steam-gauge, indicator, break, and signals, as required by the general rules in the Coal Mines Inspection Act, when a penalty, with costs, was enforced for each offence.—The magistrates said they hoped this would have a salutary effect on the coal proprietors throughout the districts.

At FRAMWELLGATE COLLIERY, Durham, there are two workable seams—the "Hutton," which lies at 34 fms. from surface, and is 3 ft. 1 in. in thickness; and the "Beaumont" seam, which is found at a depth of 78 fms., and averages a thickness of 4 ft. 7 in. The latter is a gas and coking coal. About a year ago the former owners commenced to sink a new shaft, on the Cator House estate, about three quarters of a mile from the old colliery, but for some reason or other the works were abandoned. When the present owners came into possession, a few months ago, by the advice of an eminent colliery engineer they determined to continue the sinking of the shaft, for the purpose, amongst other objects, of drawing the water from the old colliery. A few days ago, at a depth of 46 fms., they came upon the Hutton seam, of a quality and thickness which greatly exceeded their most sanguine expectations, there being 3 ft. 8 in. of good workable coal. Every effort will now be made to get the coal worked as speedily as possible, and in the opinion of persons well competent to judge, the speculation must prove one of a highly profitable character. The owners have already the possession of an extensive royalty. The old colliery is sunk on that of the Bishop of Durham; the royalty of the Cator House estate belongs to Mr. John Fawcett, of Durham; and that of Potter Moor to Lord Durham. In the direction of Durham the royalty extends to the County Infirmary. When the present owners commenced operations, only about 100 tons of coal per day were got; now between 400 and 500 tons are daily obtained, and before long that quantity will, we understand, be considerably increased. Many of the houses in the vicinity of the colliery, which have long been empty, are now tenanted and occupied by a better class of workmen than formerly, and in a few weeks it is anticipated the total amount of the fortnightly pay will be increased from 600*l.* to 1000*l.*—*Sunderland Herald.*

THE MONMOUTHSHIRE MAGISTRATES AGAIN IN TROUBLE.—Some of these gentlemen having again refused to hear a charge sought to be preferred against a manager of a mine in that district by Mr. H. Mackworth, Government Inspector. The consequence of this repeated act of impropriety was that a mandamus was granted in the Court of Queen's Bench, on Wednesday, against Messrs. Leigh, Leviek, Hubbuck, and Marsh, magistrates, compelling them to hear the charge. Upon that occasion Lord Campbell remarked that he really felt it his duty to say that these magistrates had better consider whether an application for criminal information may not be made against them. It was shocking to think how an Act of so salutary a nature as the mining statute, contemplated by the Legislature for the preservation of the lives of Her Majesty's subjects engaged in that occupation, had thus been rendered nugatory by those whose duty it was to administer it.—*Era.*

The return of the Bank of England for the week ending Wednesday, Dec. 9, compared with the previous weekly return, shows the following results:—

Circulation issue	£24,043,255	Increase £	672,485
Circulation active	20,142,770	Decrease	959,660
Public deposits	6,648,062	Increase	575,795
Other deposits	14,440,724	"	4,538
Government securities in banking department.	5,434,022	Decrease	7,625
Other securities in banking department	30,111,185	"	1,080,201
Coin and bullion in both departments	8,060,489	Increase	718,022
Seven day and other bills	811,222	Decrease	30,039
The Rest	3,493,918	Increase	34,562
Notes in reserve	3,900,485	"	1,032,145
Total reserve (notes and coin), banking depart.	4,401,719	"	1,672,682

The "other securities" have decreased, more than a million, owing to the running-off of bills, and the deposits have largely increased. The movement of these two items of the account leads at once to the gratifying increase of no less than 1,672,682*l.* in the reserve of notes and coin in the banking department. The total reserve is now 2,401,719 over and above the two millions which was issued beyond the statutory limit. The increase of 713,022*l.* in the coin and bullion raises the aggregate to upwards of eight millions; and since the Wednesday evening, to which this return extends, the Bank are known to have bought 280,000*l.* in gold. The resources of the Bank are accumulating with surprising rapidity.—*Daily News.*

TIN SMELTING.—A correspondent writes:—Par Consols has now 90 tons of tin in stock, which stock the adventurers are determined to increase, rather than sell at the present reduced price. The price of metals not having gone down in proportion with that of ores, a proposition will be made to the adventurers at their next account to smelt their own tin. The representatives of the Treffry estate are lead smelters, and all the necessary appliances exist at Par.—At Wheal Owles, in consequence of the reduction in the price of tin, it is stated that the adventurers are sustaining a loss of 100*l.* a week.—*West Briton.*

We regret to hear that the managers of the Devon Great Consols, Wheal Friendship, and other mines in this district, have signified their intention of discharging a number of men now working for them, and also of reducing the wages of those remaining in their employment. This looks gloomy, and we fear the mining population will suffer this winter for want of employment.—*Plymouth Mail.*

LEAD ORES.

Sold on the 5th December.

Mines.	Tons.	Price per ton.	Purchasers.
Nant-y-Car	30	£11 17 0	Sims, Willyams, & Co.

Sold on the 7th December.

Frongoch	100	13 11 0	Sims, Willyams, & Co.
Cwm Erfin	32	16 19 0	ditto
Vale of Towy	38	13 4 0	—
ditto	11	12 13 0	—
ditto	8	8 0 0	—

Ticketing at the King's Head Hotel, Holywell, 10th December.

Maesyrerwddu (Talargoch)	16	13 5 0	Walker, Parker, & Co.
Coetia Llys (Talargoch)	74	14 9 6	ditto
Talacre	10	14 10 6	A. Eyton.
Deep Level	45	12 16 6	Walker, Parker, & Co.
ditto	3¾	17 10 0	A. Eyton.
Bodelwyddan	5	13 3 6	Newton, Keates, & Co.
ditto	5	13 3 6	Walker, Parker, & Co.
Holywell Level	7¾	15 7 6	A. Eyton.
Brynford Hall	8	12 17 6	Newton, Keates, & Co.
ditto	1	17 1 6	Walker, Parker, & Co.
Speedwell	10	13 3 6	ditto
Hendre	3	13 0 0	Newton, Keates, & Co.
Grange	10	13 0 6	ditto

BLACK TIN.

Sold on the 30th November.

Mines.	Tons c. q. lb.	Price per ton.	Amount.	Purchasers.
Pedn-an-dreaUnited	5 5 3 26	£62 10 0	£ 331 3 9	—Williams.
ditto	3 13 1 12	58 5 0	213 13 0	— ditto
ditto	1 12 0 21	41 0 0	65 19 8	— ditto

Sold on the 2d December.

Boscean	5 1 3 10	62 10 0	318 5 0	—Bolitho.
ditto	4 7 0 12	62 10 0	272 4 0	— ditto
ditto	4 5 0 10	61 5 0	260 11 6	— ditto
ditto	5 7 1 5	50 0 0	268 4 6	— ditto
ditto	2 10 0 0	62 10 0	156 5 0	— ditto
ditto	0 11 1 26	54 10 0	31 5 6	— ditto
ditto	0 8 3 6	56 10 0	24 17 0	— ditto
ditto	0 6 1 24	54 10 0	17 12 0	— ditto
ditto	0 6 3 0	55 10 0	18 14 6	— ditto

Sold on the 10th December.

Drake Walls	9 10 0 0	61 7 6	583 1 3	—Bissoe, Williams.
ditto	9 10 0 0	55 7 6	526 1 3	—Enthoven.

COPPER ORES.

Sampled November 25, and sold at Tabb's Hotel, Redruth, December 10.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Wheal Buller	109	£1 16 0	Carn Brea	37	£2 7 0
ditto	108	1 13 0	ditto	36	4 9 0
ditto	74	2 3 6	ditto	28	1 14 6
ditto	73	3 3 0	ditto	24	8 14 0
ditto	65	5 12 6	United Mines	100	2 10 0
ditto	61	3 2 0	ditto	70	5 9 6
ditto	54	10 1 6	ditto	40	3 3 0
ditto	42	14 12 6	ditto	35	8 10 0
West Basset	82	3 3 0	Great Wheal Alfred ...	51	2 13 6
ditto	77	6 12 0	ditto	39	2 13 6
ditto	69	5 12 6	ditto	38	7 13 6
ditto	61	4 5 0	ditto	37	3 3 6
ditto	46	10 12 0	ditto	21	4 8 0
ditto	44	4 5 0	ditto	18	1 19 0
ditto	41	4 10 0	Duke of Cornwall	62	3 3 6
ditto	38	2 2 6	ditto	58	3 0 6
ditto	33	3 1 0	Wheal Charlotte	65	6 7 6
ditto	11	15 2 0	ditto	23	3 13 6
Great South Tolgus ...	97	4 0 6	South Crenver	57	2 0 6
ditto	71	3 19 6	ditto	22	5 5 0
ditto	54	7 13 0	Rosewarne United	41	7 6 0
ditto	41	6 7 0	ditto	20	3 12 6
ditto	40	6 7 6	ditto	17	7 6 0
ditto	39	5 19 6	Botallack	41	9 10 6
ditto	28	11 0 0	ditto	34	9 10 6
Alfred Consols	71	5 19 0	Wheal Trebarvah	50	6 8 0
ditto	45	1 3 0	ditto	24	4 2 0
ditto	39	8 17 6	Wheal Tehidy	42	4 11 0
ditto	18	1 11 6	ditto	20	11 11 6
ditto	17	14 14 6	Carvannall	37	11 8 6
Nanspusker	49	6 19 6	ditto	19	4 9 0
ditto	48	8 13 0	East Elfred Consols ...	56	7 9 6
ditto	38	2 4 6	Wheal Anna	37	5 10 0
Par Consols	77	11 1 6	ditto	16	2 7 0
ditto	71	11 7 0	East Rosewarne	26	4 16 6
ditto	55	6 12 6	ditto	13	7 5 0
ditto	54	10 3 0	ditto	7	13 17 0
ditto	50	4 12 0	West Fowey Consols ...	45	8 7 6
North Basset	61	5 15 0	North Downs	33	7 1 6
ditto	50	4 18 6	Treloweth	23	4 8 6
ditto	49	3 14 0	ditto	8	15 19 0
ditto	44	4 12 0	West Wheal Provid	30	5 12 6
ditto	34	6 3 6	Halamanning	30	10 5 0
ditto	23	11 4 0	Camborne Consols	11	8 12 6
ditto	21	5 1 6	ditto	10	2 6 0
Carn Brea	48	5 8 6	Antron Consols	20	6 1 0
ditto	46	2 14 0	Wheal Guskus	9	6 8 0
ditto	44	0 8 6	Sithney Wheal Buller...	5	5 10 6

TOTAL PRODUCE.

Wheal Buller	586	£2478 6 6	Wheal Trebarvah..	74	£ 418 8 0	
West Basset	502	2620 9 6	Wheal Tehidy	62	422 12 0	
Great South Tolgus	370	2110 3 6	Carvannall	56	507 5 6	
Alfred Consols ... } Nanspusker ... }	325	1940 10 6	East Alfred Consols	38	418 12 0	
			Wheal Anna	33	241 2 0	
Par Consols	307	2801 2 0	East Rosewarne ...	46	316 13 0	
North Basset	282	1554 16 6	West Fowey Cons.	45	376 17 6	
Carn Brea	263	907 11 0	North Downs	33	233 9 6	
United Mines	245	1056 15 0	Treloweth	31	229 7 6	
Great Wheal Alfred	204	777 7 6	West Wheal Prov..	30	168 15 0	
Duke of Cornwall..	120	372 6 0	Halamanning	30	307 10 0	
Wheal Charlotte ...	88	498 18 0	Camborne Consols..	21	107 17 6	
South Crenver	79	230 18 6	Antron Consols ...	20	121 0 0	
Rosewarne United.	78	495 18 0	Wheal Guskus.....	9	57 12 0	
Botallack	75	714 7 6	Sithney Wh. Buller	5	27 12 6	

Average Standard ..... £123 14 0 | Average Produce 6¾

Average Price per ton £5 10 0

Quantity of Ore ..... 4095 tons | Quantity of Fine Copper, 273 tons 1 cwts

Amount of Money £22,514 4 0

LAST SALE.—Average Standard ..... £127 14 0.—Average Produce 6¾

Standard of corresponding sale last month, 124*l.* 11s.—Produce 6¼.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal Company	168	£1035 8 6
Vivian and Sons	610	2989 8 2
Freeman and Co.	443	2615 6 6
Grenfell and Sons	267	1526 17 11
Crown Copper Company	22	188 8 9
Sims, Willyams, Nevill, and Co.	356	2747 7 0
Williams, Foster, and Co.	774	5373 6 3
Mason and Elkington	682	3883 4 3
F. Bankart	136	621 8 0
Copper Miners' Company	130	935 17 0
C. Lambert	307	1097 11 8
Total	4095	£22,514 4 0

Copper ores for sale on Thursday next, at the Royal Hotel, Truro.—Mines and Parcels.—Devon Great Consols 1526—Phœnix Mines 341—West Caradon 320—Marke Valley 304—North Wheal Robert 229—Devon and Cornwall 205—Holmbush 194—Bedford United 194—Sortridge Consols 177—Wheal Friendship 128—Collacombe 125—Wheal Arthur 123—Great Sheba Consols 111—Kelly Bray 110—Wheal Edward 98—Wheal Emma 95—Queen of Dart 30—Hawkmoor 29.—Total, 4339 tons.

Copper ores for sale on Thursday week, at Tabb's Hotel, Redruth.—Mines and Parcels.—United Mines 650—South Caradon 409—Tresavean 272—West Damsel 220—South Crinnis 166—East Wheal Tolgus 68—Tywarnhaile 61—Grambler and St. Aubyn 54—Wheal Cpmford 42—Cregbrawse 36.—Total, 1978 tons.

SECOND SALE IN DECEMBER.

Years.	Tons.	Prod.	Amount.	Standard.	Ore copper.	Cake cop.
1848	2692 ...	8¾ ...	£12,996 17 0 ...	£ 87 9 0 ...	£55 15 0 ...	£79 10
1849	2887 ...	8 ...	16,124 19 0 ...	104 18 0 ...	70 6 0

THE PROGRESS OF MINING IN 1856.
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Notices to Correspondents.

*** Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly *filed* on receipt: it then forms an accumulating useful work of reference.

ALUMINIUM.—In April last, you inserted an article upon aluminium, in which I believe Mr. Louis Bishop was named as the inventor of an improved process for manufacturing this metal at about the price of iron, and by which aluminium articles —spoons, forks, saucepans, &c.—were to replace those now in use. You stated that works were erected, and everything going on well; yet we hear nothing whatever of the works or the workmen. Surely, it must be as difficult to extract aluminium from its matrices as to get gold from Chancellorsville quartz. I think, however, there may be a better chance of obtaining some information with reference to the aluminium than to the gold, as your Paris correspondent would have little difficulty in ascertaining, by giving a call at 58, Rue de la Verrerie; whilst the gold reduction works are out of the way, and I know from experience that it is utterly impossible to hear anything satisfactory at the Loodon offices. I should advise the formation of "The Gold and Aluminium Company, Limited," with directors chosen from the promoters of the Chancellorsville, and the supporters of the aluminium process; and I have no doubt but the alloy which they could bring into the market would be readily saleable in any quantity.—GALVANO-PLASTIC.

THE LATE ALLEGED FRAUD.—The case of Stockwell v. Lord Clinton and Jeffree will be shortly before the Court of Queen's Bench. Following the salutary example you have pursued, I make no comments upon the cause; but it appears to me a curious phase in legal proceedings that a defendant should advertise for a prosecutor, and, if he can be found, offer to handsomely reward those who would state his abode. This reminds me of an old anecdote, related during the civil wars:—A clergyman had abused Oliver Cromwell greatly, who took no notice of it; but, on one of his advisers remarking it, said, "This parson has made up his mind to be a martyr: I have determined he shall not be one." Here the parallel ends. Without entering further into the subject, the matter has brought great disrepute on mining; and if there have been parties in the back ground to prompt these proceedings, I trust they will be unmasked, and receive all the odium they so justly deserve.—SCRIP.

MINING IN IRELAND.—In my paper on the "Mineral Wealth of Ireland," which appeared in your last Journal, the price of Wicklow Copper Mine Company shares are said to be 4*l*. to 3*l*. 10*s*. each: whereas it should have been 32*l*. 10*s*. to 33*l*. each. —MINING AGENT.

PRECIOUS METAL MAKING.—I perfectly coincide with your correspondent, "J. B.," that the extraction of the gold at the Chancellorsville Works should be deferred until April 1. The days will then be longer, and we shall be better able to see the forest of magnets rotate. I perceive they have been trying Welsh ores. I must ask Mr. W. S. Trotter, through the medium of your Journal, when they reduced the stuff he advertised as having arrived in England in 1855 and 1856 (see your Journal), and what Capt. Hosking is doing in Virginia? The last report I read stated that there was no limit to what could be got. Mr. Evan Hopkins, when in the neighbourhood, could have inspected the machinery; but I can guess why his presence was not desired. A correspondence has now arisen between him and the silver-maker, Mr. P. A. Godefroy: he has likewise obtained a wonderful assay; but although he promised practical results, they are now deferred until he has built a reverberatory furnace, which is in course of construction. I do not know what locality he may pitch upon. Some time must elapse for the setting of the furnace, before it can be used. Is there no suitable spot at Frodsham, and might not the experiments take place both on the same day?—ALASCO.

THE STANDARD.—We are now passing through an exceptional state of things, and if the miners will force their ores upon the smelters, they cannot expect other than a price the circumstances of the time will admit of their giving. No miner should send to market a pound of ore more than the state of his finances compels. Let him copy the holders of ores in Swansea and at Liverpool. No matter what the article sold at present is, the reduction in price is fearful—say, from 20 to 50 per cent. Unfortunate is the man who is obliged to sell; and so it is with copper and tin ores—compulsory sellers must make the sacrifice; but others, more happy in their finances, should turn their backs upon the Ticketings for a month or two. Let every leading mine do this, and a better standard must be the result. Why should Maria sell 1500 tons per month? Let it reduce to 500 tons, and others in the same way.—A SUBSCRIBER.

EAST WHEAL GEORGE.—Reports are published in your Journal of this property, yet for some weeks it has not appeared in the list. May I enquire the reason why it has been thus summarily expunged?—M. J.: *St. John's wood.*

IRON ORES IN SUSSEX.—I perceive a company has been formed for the working iron ores at Wadhurst, in Sussex. This county was once famous for its ironstone, but the works were abandoned in consequence of there being no fuel. The woods in the county being nearly destroyed, probably the coal field which was to have been found near London by some enterprising individuals from Manchester will supply the furnaces with fuel, when they are erected. Sussex iron was formerly in great repute, and the produce of Danemora now falling off, this may probably now be worked in order to supply that deficiency.—ACIEN.

ANGLO-AUSTRALIAN GOLD MINING COMPANY.—I am surprised that Mr. W. A. Coombe of Hanover Cottage, Camberwell, who deserves the praise of the shareholders for the course he took with the Surrey Gardens Company, does not display more activity with regard to this association, of which, I believe, he was promoter, solicitor, and, if I mistake not, a director. Under his auspices, in 1852, a vessel sailed from Gravesend, with the superintendent and staff of miners; two years since Mr. Falder (a director) left, but we have not heard of any of them since. This company for a short period was on the Stock Exchange List, and yet no report has ever been issued, or any account given of how the capital subscribed has been expended. At the Surrey Gardens there was an expenditure, and at least the shareholders had some amusement for their money. But here all has been a dreary blank; secretary, offices, all are vanished, and nought remains but a few enquiring shareholders, who do not hope for any returns, but simply ask how the money was spent, and where.—SCRIPSI: *Chancery-lane.*

GREAT CARADON AND SLADE MINE.—"S. M. O.," or others interested, can obtain information respecting this mine on application to Mr. Richard McDonald, Hawthorn House, Walcot, Bath.

IRON SHIP-BUILDING.—In last week's Journal, the steamer *Durham*, recently wrecked, is described as the property of the North of Europe Steam Navigation Company. I beg you will give me the opportunity of informing your readers that this vessel was not, either when lost, or at any other time, the property of this company.—WALTER THOS. SALTON, Sec.: 84, *King William-street.*

ASTURIAN MINING COMPANY.—From the *Mining Journal*, I perceive that the liquidators have allowed Senor Don Juan de Grimaldi until the end of the current year to pay up the last instalment due on the purchase of this property. I trust that these gentlemen will see the necessity of enforcing the contract they entered into with him, or the negociation may be protracted *ad infinitum*. The money market in Spain has not been much affected by the late crisis, as from the good repute the Spaniards are in no one would give them credit; consequently, there can be no deficiency from that quarter. Let us have no more idle excuses, but at once proceed to business.—F. G. S.: *Southwark.*

NORTH TAVY.—The letter from "Truth" (Tavistock) could only appear with the writer's name attached. Results must test the correctness of the captain's reports.

BEDFORD UNITED MINES.—In your last Journal, "Vectis" assumes more than he can vouch for. It appears that he will not understand why the Exeter shareholders wish to change the management. If "Vectis" be a shareholder in the habit of attending the meetings, he must recollect a discussion that took place not long since, in which Mr. Wolferstan, on being asked the prospects of the underground workings, admitted that he had been but few times underground; hence the desire to change. "Vectis" rather lashes Capt. Nelli because he is a young man, but he is much respected, and has raised himself to his present position. Capt. Z. Williams, of Old Wheal Friendship, was well known as a practical miner, and was for many years in the employ of Messrs. Taylor. Now, where could a better choice be made to inspect a mine?—FAIR PLAY.

LADY BERTHA MINE.—It should have been stated in last week's Journal that the 20 fm. level west was worth 5 tons, instead of 5*l*., per fm.; and instead of the western end at the same level being worth 2 tons per fm., it should have been the eastern end worth 2 tons per fm.—JAS. METHERELL: *Tavistock.*

DEVON BULLER.—We have another meeting on Saturday next, and a repetition of calls will be made, after so many promises at so many meetings that "this call would pay off all liabilities." The further we struggle, it appears, the deeper we get in the mire. It is to be hoped that on Saturday a call will be made sufficient to pay off all the liabities. Changes have taken place in the management of this mine—committee discharged, new purser appointed, and all to no avail; a call must be made. There are too many petty interferences by certain parties, and without this is stopped, farewell to prosperity.—SHAREHOLDER.

EAST WHEAL RUSSELL.—From all I can gather in the district, this mine has never looked so well as at present. "It is a long lane that has no turning," and now I firmly believe that the shareholders may fairly be congratulated at having arrived at the end of their many long and great difficulties. No mine, I believe, has had to contend with such conflicting opinions as East Wheal Russell: some said it was no copper lode at all, and others that the indications were all that could be desired. The present agent was so discouraged at first, that in one of his early reports he says, "I have not seen a foot of well-defined lode in the mine." His predecessor always recommended the pushing on the deeper levels, so as to get under the ore ground in the 55: I believe it was to get rid of his importunities on this point that led to his ultimate discharge, although they are now carrying this out with the utmost vigour. Now that the concern is looking so cheering, I trust we may again have the pleasure of seeing our London secretary in the neighbourhood. The last time we met, he thought of contesting the borough for a seat in Parliament, and was preparing his address. I am quite sure that many of his old friends and admirers would be delighted to meet with and congratulate him.—AN OLD SHAREHOLDER: *Morwellham.*

DEVON ELIZABETH.—I wish we could have an independent report from this mine. It would tend to allay some misgivings, with Wrey Consols, Wheal Elizabeth, and Tin Bal, in our recollection. What has become of the 20 tons of ore stated to have been raised?—LOOKER-ON.

QUARTZ REDUCTION COMPANY.—In reply to the enquiry of "A Shareholder," in last week's Journal, permit me to state, it was only proposed to call a meeting of the Quartz Reduction Company in November, in the event of the news from the mill being of such a character as to render it desirable. The time for holding the first ordinary general meeting is fixed by the Articles of Association for the first Monday in February, and on that day it will be held. Mr. Attwood has not for a considerable time been paying his expenses, in consequence of a deficiency in the supplies of quartz, several new mills having been erected in the vicinity by some of our best customers, whose veinstone was, therefore, no longer sent to our establishment. It had been found necessary to move the pumps and sink a new shaft, in order to drain the claims on Gold Hill, and considerable delay was thus caused; when the vein was reached from this shaft it was found to be very poor, and further working on it has been stopped. The intelligence of late has, however, been of a more satisfactory character. The mill has been fully employed during the day on custom-work; and on Oct. 17, Mr. Attwood writes "that a rich vein had been discovered coming into our ground" on New York Hill. He had sunk upon it, and "at the depth of 42 feet cut a very good-looking vein, of about 6 in. wide, showing gold in nearly every stone; from appearances, it would give a chance of recovering our former losses." "A new vein had also been discovered on the top of Gold Hill, which, from its appearance and position, it was hoped would prove good;" so that there would appear to be some probability of yet redeeming the past.—W. J. VIAN, Sec., 3, *Old Broad-street.*

WHEAL MARGARET.—"M. J."—Many complaints have reached us as to telegraphic messages being sent from a dealer near the spot to brokers here, to buy shares on joint account, when, at the same time, an order by the same means was sent on both occasions to other equally respectable brokers to sell, but in a larger degree. Such conduct as this must engender distrust, and recoil on the offender.

CHANCELLORSVILLE FREEHOLD GOLD MINING COMPANY.—It appears that the system of management so much complained of in this country is even more acutely felt in Virginia, and that as little has been done at the mines as at Frodsham. Captain Wm. Hoskins, under date Nov. 14, writes from the mines that he was engaged on Aug. 26, 1856, at a salary of 500*l*. a-year—300*l*. to be paid to his agent in London, and the remainder to himself in Virginia; yet, up to the date of his letter, he had received but 42*l*. 18*s*., and his London agent (to Oct. 23) had received but 75*l*. The Cornish miners have been treated much in the same way, and would be glad to leave had they sufficient funds to enable them to do so. The English miners' wages are unpaid, and the credit of the company at a discount in consequence of his having no funds at his disposal—since his arrival there, on Oct. 25, 1856, he had received but 201*l*. to defray the expenses of the company and to carry on the operations. In one instance he was 16 weeks without receiving any letter from either the directors or secretary. He very justly asks what kind of control he can have over the English miners, and what means he has of obtaining native labour and credit? He supposes the company expect him to shoulder the ore, carry it down to the coast, and then find a vessel and ship it. He would only be too glad for the directors to pay him his salary, send him sufficient funds to pay all debts at the mines, and discharge him, as he is in a most pitiable position, and in fear of gaol in a foreign country. He considers that, after such a violation of its conditions on the part of the company, his agreement should be cancelled.

LADY BERTHA MINE.—In the report of Capt. James Metherell, inserted in the Journal last week, it was stated that the lode in the 20 was 4½ ft. wide, worth 5*l*. per fm.; it should have been "5 tons" per fm.

MINING IN WALES.—We have received several communications from working men who are engaged in exploring metalliferous lodes in some of the districts of the Principality. They complain that, when lead was selling at a good price, and flour was 3*l*. per sack, they were obtaining fair average earnings; but now that cereals have become lower, their bargains are reduced in the same proportion. They further state that a good harvest and a cheap loaf has been of no utility to those in the district. At all times they have merely living wages, and no opportunity of saving anything for the future. Dividends have been paid at the mines. They state that they merely require a fair day's pay for a good day's work, but that, in one mine, which it would be invidious to mention, the pay is so irregular that the workmen are obliged to take long credit from the shopkeepers. The consequence of this is that the tradesmen say it is they who are working the mine; and having to give long credit, the workmen must give them an enhanced price for all the necessaries of life. All this could be easily obviated: if minerals are at a low price, and breadstuffs are cheap, the operative ought to submit to a corresponding reduction of his wages. No man is justified in paying more than he can legitimately afford. A course of extravagance might lead to a speedy abandonment of the mine, and a discharge of the whole of the workmen, which must necessarily entail a vast amount of pauperism in the district where such circumstances occur. Whatever may be the contract between the employer and the employed, it ought to be fulfilled so soon as the work is done: the pay-day should be regular, and the men ought not to wait for their money after the accounts were made up. With ready cash they could go where they liked, and it would be their own fault if they were dependant upon the shopkeepers. No mine can be properly conducted with advantage to either the adventurers or the operatives, unless the system of prompt payment to the latter is rigidly carried out.

Received—T. W. Lord (Leeds); P. A. Godefroy; "An Old Shareholder" (Penzance).

EXTRACTION OF SILVER FROM ITS MATRIX.—Mr. Godefroy, in his last letter, observes that "Facts are always better than arguments;" therefore I expected that he was going to show us the quantity of silver he had obtained from a few tons of mineral treated by his process. Instead of which, he only informs us that Mr. Mitchell has made an assay of a sample of pyrites washed out of 200 lbs. of rough matrix. How can an assay of a sample prove the value of a process intended to extract the silver from any given mass of rough ore? We want the assay contents of the rough ore, the total amount of silver obtained therefrom, and the cost of the operation. Until this is done, it is useless to dwell on the merits or demerits of Mr. Godefroy's process.—EVAN HOPKINS: *Cologne.*

NORTH WHEAL ROBERT.—Having received several enquiries relative to the paragraph which appeared in last week's Journal, we may state that we were misinformed as to the intention of reappointing Mr. J. Wolferstan as manager to this mine. It should have been "South" Wheal Robert.

TRESELLYN MINE.—This mine appears in your List as a tin and copper mine, Altarnun, and was quoted last week as business done at 1*l*. per share. I shall be glad if you will inform me the state of the property, and whether they have any machinery? Or does it at the present time, as I am informed, merely consist of shode pits, sunk by farm labourers?—AN OLD SUBSCRIBER: *City.*

CHANCELLORSVILLE FREEHOLD GOLD MINING COMPANY.—I am informed that the company's works are now complete, and all they want is "money." After the manner in which they have treated the shareholders, by withholding all information, I do not think it very probable they will respond to any call for additional capital.—J.

THE PROGRESS OF MINING IN 1857.

BY J. Y. WATSON, ESQ., F.G.S.

Complaints having been occasionally made, that certain mines had not been noticed in the Annual Mining Review, it is particularly requested that agents and pursers will forward a brief account of their mines (especially of those in new districts), either to Mr. J. Y. WATSON, St. Michael's-alley, Cornhill, or to the Editor of the MINING JOURNAL, 26, Fleet-street, as early in December as possible, that they may be embodied in the forthcoming Fourteenth Annual Review.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, DECEMBER 12, 1857.

The period is again rapidly approaching when we publish our returns of the mineral products of the different counties, and we request the managers of mines generally to forward us full particulars of their transactions. At no period probably was it more desirable, or more necessary, than at the present to show the vast resources of our home mining interests, and to prove beyond controversy that they have withstood the great mercantile shock with equal, if not less, deterioration than any similarly extensive establishments whatever.

We had anticipated a vast increase on the amount for the entire year over that of 1856, and still suppose that a considerable surplus will be exhibited; but it must be borne in mind the late depreciation in value of ores has necessarily interfered with our calculations, and that many of our larger mines are either withholding part or all of their ores until better prices shall have been quoted. When such mines as the South Frances send word to the smelters not to send their samplers, as they intend to hold for a month, and when, as we know, parcels of tin, 20 tons at a haul, are withheld, it is impossible to arrive at a correct deduction; but still it is absolutely necessary, for the benefit and true interest of mining generally, to place such an array of figures before the public as the facts of the case will warrant; the reaction which must and will take place ere long will do the rest to put mining into the most flourishing condition. Our accounts from the mining districts assure us of increased activity on the part of many of the younger mines, acknowledging at the same time that some must succumb to the universal pressure; still, on the whole, there is no cause for despondency. Tin has been lower; the standard for copper has been far worse, and is recovering. Prices for labour and materials are falling daily, so that any difference which may remain after a few weeks will scarcely be felt. Shares in the country, as well as in London, are in good demand, especially for such mines as are remunerative, and those where no great outlay is anticipated. It is well known that Cornish speculators have great objections to mines in which the proprietary are divided into very large numbers; these are, therefore, neglected. Rumour has been rife both in town and in Cornwall about two or three large undertakings, to which we will no further revert than to say we hope and believe they will be found incorrect, and that all will be well.

Though a further fall of 6*l*. per ton in tin was announced last week, yet it seems not to have led to an increase of business. This, we fancy, is the last drop that can take place: if a further decline be announced, the miners will be compelled either to stop the weaker mines or make advances, so that the agents may stack their tin. This we know to be the determination of some dividend-paying mines. The Wendron Consols have allowed their usual time for selling to pass by, and have not offered their tin (upwards of 20 tons), the shareholders warranting the managers to withhold it until better prices be realised. We have seen heaps of tin stacked in the stone, that will not be stamped and dressed until the times improve.

In making up the quarter's returns, it must be remembered that all these parcels are excluded from fortuitous causes; that the gross amount shown in the tables will be far short of the produce; that in all probability, with a revival of trade in the spring, which, as we have before said, must come, a revival of mining will follow, when the quantities of hoarded mineral will be returned by degrees to the market, and the immense production of our home mines be fairly and justly represented. We however, urge all miners to forward statistics of such sales as they have made.

"A feather thrown up shows the way of the wind." The rise in the standard indicates that the smelters are at length becoming alive to the injustice, to say the least of it, which they are inflicting on the miner; and that by oppression they may either provoke much hostility, or crush many of the smaller producing mines, which must sell—equally fatal consequences to the monopolists. Some steps should undoubtedly be taken to thwart, at least, this state of things. Not only do the smelters mulct the miners in their ticketings, after holding secret meetings amongst themselves, but by their servants, who are paid for every duty they undertake on behalf of their employers. Sampling, weighing off, ticketing dinners, &c., must be paid for by the miner, whether he be there or not.

These things may be, and probably are, as nothing in the eyes of these millionaires, but to shareholders in poor mines they appear as considerable and objectionable items. In such mines as the Devon Great Consols, and other large mines, they amount to a considerable revenue. These are paid by the miner, and not by the lord, in his proportion even. No other branch of business is subject to such imposition. Why is this? Why cannot at least this incubus be thrown off the shoulders of the miners? Surely, if they cannot overcome the monster itself, they may strike off one of its heads, and sear the place so that it may not reappear. The miner risks his capital in the production of that on which the monster fattens to repletion. The smelters have no risk whatever: they sample and try—aye, with fire, too!—before they buy, and regulate their own price, so that they cannot possibly be deceived by the most cunning or knavish of their supplyers. Nor do we believe they are subject to losses by their sales, as metals are usually dealt in for cash, or its equivalent—that is to say, as far as the smelter is concerned.

It has been suggested that the pursers and managers of mines should hold a meeting on the subject. We think such meeting would be most desirable and beneficial. We sincerely hope they will have the spirit and determination to do so, not only to devise a better and more economical mode of sampling and ticketing, but a more satisfactory method of selling their various produce than the present antiquated and primitive practice. Better modes of disposing of tin, blende, &c., could also be introduced and discussed than, in the one instance, taking it to smelting-house and depending on what the smelters' samplers report, who, it may be relied on, are on the right side for their masters' interests, as well as for the sake of retaining their own situations.

There must be a radical evil in a system when parties whose interests should be identical are antagonistic, and who look upon and treat each other with mutual distrust. It has existed too long, and should be brought to an end. A better or more appropriate time than the present could hardly offer, and advantage should be taken of it by miners, who now feel as well as see the situation to which they are reduced. Why not send the ores to Swansea, to be sampled and sold there, as is done by the Bampfylde, Molland, Queen of Dart, and other mines?

By all means let the pursers meet at some central town. We feel persuaded the meeting would be well attended, and great benefits to min-

ing result from combined methodical action. This is as much the landholders' question as the miners', for their interests are deeply implicated, not only by the reduction of their dues to a serious extent, but by the non-prosecution of discoveries in their lands; therefore, they should join heart and hand in the good cause, and endeavour, by presence and purse, to promote that reformation so necessary for the encouragement of one of England's greatest enterprises.

In last week's Journal a communication appeared from Mr. J HARVEY, of Kingsbridge, regarding the smelters' monopoly both in tin and copper. This gentleman reiterates the old complaints which have been so often urged, and with such a show of justice, against the reducers of ores. As we have previously stated, statistics have from time to time been published in our columns, showing the cost of erecting furnaces and the necessary plant required, even to the most minute details, so that no one interested can plead ignorance on the subject. A mysterious secrecy was for a considerable period preserved of the methods of refining, and it was supposed foreign smelting would never answer. Experience has shown the Alten Company and the Elbe Copper Works though obliged to obtain their fuel from England at about three times the cost it can be purchased in Swansea, yet they have smelted ores to a considerable profit. We have, it is true, within the last six months, the notice of the lamentable failure of a South American company, the causes of which it is needless here to allude to, as it is totally foreign to the question of legitimate smelting, conducted by practical men and those who are commercially acquainted with the copper trade. No one denies but that smelting, properly carried out, with a sufficient capital, is a profitable business: the proof of this is shown by the colossal fortunes made by men who have been reducers of copper and tin ores. The mode in which the copper smelters have tampered with the miner, and made a sliding scale to suit their own purposes, we have always denounced; from time to time we have exposed the methods they have practised to influence the market. What has the mining interest done? They held meetings, expressed a sense of the injury they have experienced, passed a series of resolutions which have never been carried out, and all their efforts, ushered in by flourishes of trumpets, have resolved themselves into mere wind.

Periodically, some persons connected with the mining interest cite their grievances; they grumble, and there the matter ends. Mr. HARVEY states in his letter "Who would be free, himself must strike the blow;" in this world there are many who would be free, but circumstances will not allow them to strike the blow, as by so doing they would injure themselves, or to use plain speaking, "cut off their noses to be revenged on their faces." It has been urged that several young promising mines should unite, and either send their ores to an independent smelting establishment or erect works themselves. When a promising mine is first opened there is always a quantity of dead ground to be gone through; this often necessitates, for some two or three years, or probably a longer period, that calls should be made; many people who invest in mining believe that if the sett in which they are interested does not produce ore that it will do so shortly, and with this anticipation they pay the demands made upon their purses for the further prosecution of the undertaking. So soon as the first sampling takes place, be it in however so small a quantity, increased confidence is afforded to the proprietary; and, in many cases, though this is most erroneous and highly to be censured, the value of the mine is calculated according to the price obtained for the ore. Despondent shareholders then feel their prospects brightening, and are willing to pay calls. There are many mines so situated that they could not afford to wait until their produce was turned into copper; and then the persons entrusted with their management are not so acquainted with the trade that they could dispose of it to advantage, or afford to give long credit when such was needed. Notwithstanding the many and tedious metallurgical operations by which copper is reduced, and which have so often been detailed in this Journal, we have met with men largely interested in mines who have believed that by a simple reduction the ore could at once be converted into pure metal, just in the same way as tallow may be made from suet. The question of freight, land carriage, cost of fuel, and materials it is not necessary here to enter into; previous to any project being ushered into public notice these must be calculated and detailed. Judging from the manner in which companies have been conducted, with their boards of directors who know in general but little of the business they undertake, accompanied with secretaries placed there by connection, and officials introduced either through the influence of nepotism or patronage, we would enquire how they could compete against a united phalanx of monopolists, who obtain the best and most practical talent to carry out their objects and views. Before any great question can be decided, the board has to meet; a minute is then made and entered on the books; while all this routine is being gone through the individuals who know their business are enabled to make sales and effect purchases, while their would-be competitors are debating what is the best course to pursue.

Many attempts have been made to establish independent smelting works; they have hitherto proved nothing but abortive failures: want of capital, and the still greater absence of combination, have hitherto been the principal stumbling blocks that have impeded the onward progress of the miner in his endeavour to become independent of the smelter.

We have no desire to discourage the praiseworthy efforts of Mr. JOHN HARVEY, or any other public spirited individual who will agitate a cause which, if successful, must be conducive of great benefit to the miner. We shall again recur to the subject; but what we would urge is, that some definite plan should be organised, and a certain amount of capital raised, before any virtual efforts are made to disturb the present order of things; this done, a satisfactory conclusion may be arrived at. Should this not be the case, it will only be a stronger and more convincing proof to the smelter how dependent the miner is upon his good offices, and that he can work him according to his want or will, as the case may be.

The EAST INDIA COAL COMPANY held their second annual meeting on Monday, and in another column will be found a detailed report of their proceedings, by which it appears that the opinion we have expressed in its favour as an investment is nearly verified. This company, although only in existence two years, has sent out from this country, and erected in India, some of the largest machinery ever exported for colliery purposes. The first year the Government entered into a large contract, which was duly completed, and a second one of equal extent for two years has been concluded, and in course of execution. By the additional machinery which has been in operation since the accounts were made up, the produce from the mines will be fourfold, and as there is a ready market for the coal, coupled with the fact that railway communication is being rapidly carried on over all parts of India, it is only fair to anticipate highly favourable results for the shareholders. Indeed, notwithstanding the short time the company has been in existence, they are now working to a large profit, as according to the accounts received from the agents at Calcutta, by the last Indian mail, the profits this year will amount to above 12,000*l.*

The delivery of letters, per *Simla*, from our Australian colonies, both *via* Marseilles and *via* Southampton, has been made since our last publication. The dates from Sydney, Melbourne, Adelaide, &c., are those mentioned in our article on this head on Nov. 28. The detailed intelligence is a confirmation of what we had led our readers to believe would be the result in reference to the different questions before the Colonial Legislature of Victoria—namely, the Crown Lands Bill, the Anti-State (Religion) Aid Bill, and the Railway Bill, founded on the report of the Committee appointed to take evidence on the question. All three had passed the Assembly, but the Council, or Upper Chamber, had rejected the two former *in toto*, and had referred the latter to a select committee of their own body to recommend the course to be pursued. The Council had obtained great popularity by the steps they had taken, and the Government had fell into equal discredit, as both the Land's Bill and Anti-State Aid Bill were measures which were generally condemned by the population at large, and the Railway Bill was hastened through the Assembly with reprehensible haste, on no other ground, apparently, than that an extravagant expenditure might be made, wherewith various interested persons might enrich themselves at the expense of the colony. As evidence of the erroneous data on which the House had adopted the report of the committee, it may be mentioned that Capt. CLARKE, the Surveyor-General, who introduced the bill, estimated the cost at 47,000*l.* per mile, but being pressed by pertinent questions, he decreased his figures by degrees until they receded to 30,000*l.*, knocking off, in fact, the in considerable sum of 17,000*l.* per mile.

The proposed outlay for the two trunk lines is a total of 8,000,000*l.*, of which it is coolly remarked that 7,000,000*l.* is to be obtained from England. Under any circumstances, we much doubt whether so large an amount of capital could have been secured here for such expensive works, but under the present state of our money market the idea is quite out of the question; therefore, as respects the money interests of this country, it seems of little moment what determination the Council may arrive at. The impression in Melbourne was that the plan, as proposed by the Government, would be altogether rejected, not only on account of the enormous capital demanded, but that one line would meet the requirements of the two, or so modified that the Ministers would probably decline to proceed further with the measure. The Assembly had adjourned for a month, to give time to the Council to consider the measures before them. On the reassembling of the House, it was expected a Reform Bill would be introduced for the extension of the franchise, and on the measure becoming law, that a dissolution would take place.

Business generally was inactive, but in some channels there are rather more briskness, in consequence of the increased success of the gold diggers. The returns furnished of the receipts of the precious metal from the interior, and the shipments home, are a mere repetition of the statements furnished to our readers in former remarks. The information from the different mines is interesting, but presents no feature for comment. Our Melbourne correspondent's letter, per *Simla*, will be found in another column, as well as extracts from communications from Geelong.

SURFACE TRANSPORT OF COAL BY LAND AND WATER.

Mr. HERBERT MACKWORTH, F.G.S., delivered a lecture on this subject at the BRISTOL MINING SCHOOL, on Monday. Mr. Greenwell had landed the coal upon the surface, and it remained for the lecturer to follow it through the commercial channels, where it becomes the creative power of much of our national wealth and greatness. No country had such great facilities for export of coal as Great Britain, with the exception of Nova Scotia and Cape Breton. These latter places possessed a vast extent of coal, and an extensive sea-board, and were evidently destined to a future greatness, when their mineral wealth was properly developed. A large proportion of the coal in America was something like 300 miles from the sea. The coal of Belgium and France was also unfavourably situated for exportation; it was calculated the coal in the former country would be worked out in the course of 30 years, after which a supply would have to be sent from our coal fields. Our colonies were generally well off for coal. There were considerable areas in the vicinity of Newcastle, near Sydney, Australia. A coal formation crossed Tasmania, in Trinidad. Some was found in the East Indies, near Calcutta, for the working of which the East India Company had very wisely been seeking to adopt means. Dr. Livingstone gave some account of coal in the interior of Africa. Wherever found it was always a good sign for commerce. It was divided into house, steam, smiths' forge, and coking or gas coal. Another mode of division was into bituminous, free burning, and anthracite; also into red and white ash. Red ash indicated a small quantity of iron, but might also be taken as a proof of the coal's freedom from earthy matter. The quality of coal depended on its size, weight, hardness, &c.; the value of these properties was seen in the effect of weather upon it, and in packing, &c. To separate coal, screens were used. For house coal, in the North of England, a $\frac{2}{4}$-in. screen was generally used. The pit heap, or scaffold, should be raised about 20 feet above the surface for screen accommodation. The angle of the screen varied according to the kind or size of coal; 26°, or 18 inches in the yard, was a good inclination if of iron, with a foot-plate about 2 ft. wide at the bottom, to check descent. Screen surface might be increased where the fall was little, by using a circular revolving screen. There was considerable loss from breakage. One cubic foot weighed about 78 lbs., or a cubic yard about 19 cwts. The large coal, from $\frac{2}{4}$-in. screens, weighed 48 lbs. per ft.; and the small, from 3-16 in. screens, 43 lbs. per ft. An acre of coal 1 yard thick weighed 4500 tons. Down to 1600, and a century after, coal was conveyed to the Tyne side in carts and panniers. In 1676, Lord Keeper Guildford described timber rails, and carts with rowlets, to draw about 15 tons of coal at a load.

In 1700, Sir Humphrey Mackworth (an ancestor of the lecturer) took trams from the working-place of coal 1200 yards underground, and then three quarters of a mile to the water side, in the neighbourhood of Neath, Glamorganshire. In 1767, 6 tons of iron rails were made at Colebrook Dale. The introduction of railways had been the great means of the development of coal mining. By the locomotive, the introduction of which was due to Trevethick and George Stephenson, we now carried coal at a 1d. per ton per mile; indeed, much was carried at $\frac{1}{4}$d. per ton, with the further charge of $\frac{1}{4}$d. per ton for wagons and plant. At the end of last year there were 8700 miles of railway in the United Kingdom, and the total receipts were 24,000,000*l.*, of which 2,000,000*l.* were for minerals. Besides this there were private railways, which in Northumberland and Durham alone—including drops, wagons, and coke ovens—absorbed a capital of 13,000,000*l.* The facility of conveyance by canals we owed chiefly to the perseverance of the Duke of Bridgewater, and the genius of Breadley, his engineer. They had carried a canal underground, which crossed fifteen beds of coal, varying from 22 in. to 7 feet in thickness; the length was about 6000 yards; height, 8 ft.; width, 9 ft.; and depth of water, 3 feet 9 in. A higher gallery was 18 miles, and the upper gallery 10 miles of canals. The 10-ton boats took coal to Manchester. There were some fine canals in Belgium, on which 60-ton boats were used. In some cases railway inclines were worked by ropes; in others, overcome inclines were adopted, as in the Alleghany Mountains; and at Mouch-Chunk, in America; also at Liege and Aix-la-Chapelle. Inclines, where the aid of ropes had been necessary, were now in many cases climbed by the locomotives unaided. The Taff Vale incline was 1 in 18; one in West Cornwall was 1 in 9 and 1 in 10. A locomotive had passed up the Gloucester incline twice was 1 in 37, but an auxiliary engine was necessary. Curves should not be less than half a mile radius for passengers, unless under peculiar difficulties. Old tramways were being fast done away with, and improved railways substituted. Atmospheric railways had been attempted at Dalkey and Kingstown, also on the South Devon line. Mr. Mackworth described various apparatuses for shipping coal, as in use at the ports of Newcastle, Sunderland, Hartlepool, and Seaham, and illustrated methods of his own invention in the use of endless bands by working models.

THE HISTORY OF GAS LIGHTING.—A very interesting treatise upon gas lighting has just been published by Mr. H. Gerner, C.E., of New York, the principal object being to show the superiority of oleflant over coal gas, and to prove the advantages that are derived by employing Longbottom's patents for the manufacture of oil gas by a simple and inexpensive process. It appears that in 1667 Mr. Shirley contributed a paper to the Philosophical Society, describing a spring arising in the coal district of Wigan, and supposed at the time to be a burning spring, because the vapour could be ignited at surface: he pointed out that it was not the water which burnt, but the gas by which it was accompanied; and he traced the origin of the gas itself to the beds of coal which abound in that part of the country. In 1726, Dr. Hale stated that from the distillation of 158 grains of Newcastle coal he obtained 180 cubic inches of air, which weighed 51 grs. Seven years afterwards, Sir James Lowther communicated a paper to the Royal Society "On the Inflammable Air issuing from the Shaft of a Coal Mine near Whitehaven." When lighted it burnt with great intensity, making a blaze about 3 ft. diameter and 6 ft. high. In 1768, a proposition was made to the magistrates of Whitehaven, by the agent of Lord Lonsdale, to convey this gas through pipes to light the town; but it was rejected, although the proposer proved its practicability by conveying the gas into his own office, and using it for the purpose of lighting. The first attempt, however, to procure illuminating gas for practical use was made by Mr. Wm. Murdoch, a Cornishman, in 1790, and in two years afterwards he actually lighted his own house and office, at Redruth, with gas. In 1798, he lighted up part of Boulton and Watt's foundry; and in 1805 he erected an apparatus for lighting the largest cotton mill in Great Britain; the light supplied being equal to 2000 mould candles of six to the pound. From that time to the present each year has marked some progress in gas lighting, the feature for this year being the illumination of Calcutta by this means. Mr. Gerner then explains the composition of illuminating gas, gives instructions for detecting sulphurretted hydrogen, sulphuret of carbon, cyanogen, &c., and describes the modes of testing gas, and comparing them by the photometer. He discusses the merits of Shepard's electric gas, the hydro-carbon gases, water gas, peat gas, and wood gas, and concludes by a description of Mr. Abram Longbottom's inventions for improving the manufacture of oil gas. It is generally admitted that oil gas is preferable and superior to that distilled from coal, the sole objection to its introduction being the cost of the oil. Resin was used from the very first discovery of gas illumination, and the question naturally arises, Why was it abandoned? Probably, in comparison with coal, it was found too expensive. By constant devotion to the subject, Mr. Longbottom discovered that resin contains many valuable materials and constituents apart from its gas-giving properties, and that those materials first removed from the resin leaves an article much better fitted for the manufacture of gas than resin in its crude state. By his mode of manipulation he obtains, as a costless residuum, an oil for the manufacture of gas unequalled in the whole range of chemistry in its richness and purity for illuminating purposes. At this time the want of an inexpensive apparatus for the generation of gas from this oil was felt, and he ultimately succeeded in inventing an extremely effective contrivance, capable of being managed by anyone; his inventions in their entirety and completeness enabling absolutely pure gas, free from everything obnoxious, both in manufacture and use, to be produced at such an economical rate that nothing containing equal light-giving properties can be able to contest with. The gas has been favourably reported on by Messrs. Brandram Brothers, Prof. Mulder, Drs. J. E. de Fry, Adrian, and many others; and testimonials of the most flattering nature have been received, so that there is no doubt that ere long the invention will be generally adopted. In the *Mining Journal* of Aug. 22 we referred to the advantages which would be derived from the use of gas in mines, and certainly there are few inventions better calculated to render lighting mines by gas easy and effective than that we now allude to.

THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL.

[FROM OUR CORRESPONDENT IN WEST CORNWALL.]

DEC. 10.—The copper standard advanced last week above 3*l.*, as compared with the preceding week, and about 5*l.* as compared with the lowest depression on Nov. 12. Reasonable hopes may be entertained that the worst is now past, and that improvement, though at first slow, will continue. The temper of the mining interest is not so easy, under these depressions of the standard, as it was in years past; there is a growing conviction that the depressions are often excessive, and sometimes wholly unnecessary as a consequence of the state of trade. That can scarcely be maintained now, as the metal trades of the country, and the exports to America and India, have been disastrously affected; still, admitting this to be the case, there is ground for maintaining that the smelters have lowered the standard excessively. Various plans are talked of for the future protection of the miners; it being clear that, so long as the smelters have the absolute power of fixing prices, the miners are completely under their domination, and at their mercy with regard to the prices of ores. Many have desired the establishment of a new smelting company, on an independent basis, to compete with the existing companies. Others think there would be no difficulty in the miners smelting their own ores, establishing smelting works in Cornwall and Devon, and bringing coals from Wales for the furnaces. It is said that Great Wheal Busy sett would be a suitable place for such smelting works, and that in two or three other districts similar ones might be erected; that the leading mine adventurers in Cornwall and Devon could supply capital to erect and carry on such works, charging a fair amount per ton for smelting to mines with which they were concerned, and all others bringing ores to them; also establishing agencies for the sale of the metal, and, in fact, supplanting, as far as possible, the present monopolising system by which the smelters amass great riches, and the miners are deprived of their just profits.

The great thing wanted by mine adventurers is union, and, to this end, information with regard to the practicability of smelting for themselves. If they were led to see how much the smelters profit by them, and that there are good chances of success in the establishment of miners' copper smelting works in Cornwall and Devon, it would be likely to lead to a united effort by mining adventurers to rid themselves of the present smelting system. Mining shareholders in London and elsewhere would, no doubt, readily join in such a movement, if it could be shown that there were strong chances of its being successful. Information on the subject is the great thing at present wanted, emanating from some competent person or persons. It would scarcely be sufficient to publish such information through the press, although that might be some use: the better way would be to communicate first with some leading adventurers and agents, and then to call a public meeting in the east and west of the county, and in the Tavistock district, to lay the subject open; and nominate a general committee, with the view, if possible, of bringing the matter to a practical issue.

The letter of Mr. Harvey on this subject, in the Journal of last week, has attracted some attention, especially as his views to a certain extent coincide with those of some persons who have been considering the subject in Cornwall. Mr. Harvey proposes a "Cornwall and Devon Copper and Tin United Miners' Refining Association," and says he is prepared with "an overwhelming mass of statistics, viewing the matter in all its bearings, commercial, and more especially financial, showing the ease of its accomplishment and the certainty of its success." This is precisely the kind of information wanted; and if Mr. Harvey, or any other person, can give it to the mining community in a satisfactory way, it may lead to great results. Mr. Harvey maintains that the coals should be brought to the metal (*i. e.*, that copper smelting should be conducted in Cornwall); that copper and tin can be refined at one-third the margin, or "returning charges," the smelters now take to themselves; and that 20 cwts. of ore should make the ton, and not 21 cwts. as at present; and that the advantage incident to the assay should accrue to the miner, and not to the smelter. He maintains that as silver and gold have a standard price, so may copper and tin; and that there need have been no drop at all in the prices, "with a financial arrangement made with a London, or even country, bank to advance upon warrants on the pure metal in times of pressure like the present, the security being undeniable."

If there were a monthly or quarterly meeting of mine managers, as proposed by the Wendron purser, the subject might be brought before them, discussed, and the information collected, ventilated through the columns of the newspapers. It is quite time that the tin, as well as the copper, miners should be stirring in behalf of their own interests. Another reduction of 6*l.* per ton in the price of tin took place last week, the reason for which is thrown upon the quantity of tin which is coming across from America. However that may be, one thing is certain—that every ton of black tin the smelters purchase now they will make a great profit upon in a few months' time; for as stocks are known to be very low in manufacturers' hands, as soon as trade begins to revive the price of tin will rapidly go up; and what the tin miners are now selling so low will then bring in to the tin smelters enormous gain. They have lately reduced the price of black tin more in proportion than the price of the metal has been reduced, which is only following an old practice of the copper smelters. Some of the large mines which are stocking tin should see if they cannot establish a smelting-house between them, to smelt their own produce. It is reported that Par Consols is about to do this, and if other mines would follow it would break the back of the tin-smelting monopoly.

The prices of mining shares generally continue low, and afford a fine opportunity to capitalists for effecting cheap purchases. East Basset maintain their price at from 95*l.* to 100*l.*; Wheal Basset are 145*l.* and 150*l.*; South Frances, about 230*l.* Great Busy is opening up well, and likely to make a profitable mine when better prices are given for ores. At Great Wheal Vor, a reduction of wages has taken place, and it is rumoured that in consequence of the low price of tin the mine will be abandoned. As, however, the agents have now reached the bottom of the old workings, the shareholders surely will not abandon the mine without a struggle to provide funds until the temporary depression of prices is over. It will be a sad thing for the neighbourhood if this great mine is abandoned. North Basset Mine is stated to be looking better. South Tolgus shares are flat. Grambler and St. Aubyn about 81*l.*; Clijah and Wentworth, 4*l.* 10s., and upwards; West Frances shares, 18*l.*; Wheal Margaret about 48*l.*; Providence, 70*l.* Alfred Consols has paid a dividend of 4s. per share. West Alfred continues to look very encouraging. East Falmouth is doing well, and shares are at 4*l.* Boscean Mine is looking well, discoveries having been made in the 77 and 89 fm. levels: at the meeting, on Friday, there was a balance in favour of the mine of 1640*l.*, being 4*l.* more than was previously in the purser's hands. Wheal Owles is working at a loss. At Pendeen, a call has been made for the erection of a steam-whim and crusher, which are considered necessary in the present circumstances of the mine. Reductions of wages have taken place in St. Just and other districts. One or two mines have already been "knocked," and it is feared that others will follow, unless the prices of copper and tin ores soon advance.

The subject of the Temperature of Mines is one of much interest, and may, probably, be found of importance as an element in relation to mineral deposits. I adverted recently to a paper by Mr. W. Jory Henwood, on Subterranean Temperature, observed by him at the Chanarcillo mines, in Chili, which paper was read at the annual meeting of the Royal Institution of Cornwall, held at Truro. Those mines produce silver, and are situate on the declivity of the mountain of Chanarcillo. There is every facility for natural drainage; scarcely half a dozen showers fall during

the year, and penetrate only a few inches into the parched soil. The surface is destitute both of springs and vegetation, and there is no water in any of the mines. The rocks of which the mountain is composed consist of three beds of greyish limestone (destitute, so far as Mr. Henwood had observed, of organic remains), which alternate with two of hornblendic rock, which, for brevity's sake, may be called greenstone. It is in the limestones alone that the lodes and branches are metalliferous; in the greenstones they are unproductive. The deepest mine in the district is the Colorado, but its deepest point (about 250 fms.) has not yet reached down to the level of the plain. Mr. Henwood stated the temperature at various depths, and remarked that the ratio of progressive increase in descending is much slower than in the schistose, or even in the granitic rock of Cornwall and Devon; a fact of which, as far as relates to the stratified rocks of some other countries, he long since became aware, from a comparison of his own observations in this country with those of others elsewhere. A much wider field of research must, however, be examined before he could venture to pronounce on its generality.

Some discussion took place on the subject of this paper, in the course of which Dr. Barham stated the result of a comparison of Mr. Henwood's observations. He said they showed that whilst the increase of temperature in mines in Cornwall and Devon was from 58 to 86 degrees, in descending from 50 fms. below surface to 200 fms.; in Chili, the increase was only from 64 8-10ths to 74 5-10ths degrees, in descending from 46 to 227 fms. In Cornwall and Devon, the difference approached 30 degrees; in Chili it was only 10 degrees.

Mr. R. M. Fox said it was important that such experiments should be made in mines where there was no water; there was no doubt the ascent of warm water from great depths would tend very much to affect the temperature. If experiments could be made where the rock was dry, and the nature of that rock was ascertained, it would be considered very valuable by a gentleman who is now making mathematical investigations with regard to the conductive power of rocks, and in which he states that the heat ought to be in the inverse ratio of the conductive power of the rock.

THE IRON AND COAL TRADES OF STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN WOLVERHAMPTON.]

DEC. 11.—The commercial prospects of this district at present do not present any features of improvement. Upwards of thirty blast-furnaces are now blown out, and the mills and forges are reducing their make by fully one-third, so that in spite of the reduced make of pigs the supply equals the demand, and as there is a general disinclination to purchase, a reduction of some 20 per cent. has to be submitted to by those who wish to sell. Makers who are able to await better times are not disposing of the produce of their blast-furnaces. Probably it will be within the mark to say that 10,000 men are thrown out of employment altogether throughout the district, and that as many more are only working a portion of the week. Retail shopkeepers feel the effects of the crisis very sensibly. As yet no great increase in the applicants for relief have been experienced by the parochial authorities. Probably in a fortnight or a month hence this will be more distinctly experienced. It is generally anticipated that the reduction of wages of from 20 to 15 per cent. (notice of which was extensively given on Saturday last) will be acceded to by the men. There can be no doubt that the fall in prices warrants this reduction.

Two or three firms have been announced as in difficulties, in addition to those previously mentioned. Messrs. Brayford and Lancaster have, it is said, petitioned the Bankruptcy Court for protection under the private arrangement clauses of the Bankruptcy Act. The committee appointed to investigate the state of the affairs of Mr. C. F. Perry has reported larger liabilities and much smaller assets than were estimated in the statement drawn up on Mr. Perry's behalf. A dividend of 8s. in 1l. has been all but unanimously accepted. At a meeting of the creditors of Messrs. Solly, of Lea Brook, &c., held in Birmingham, yesterday, payment in full was offered in instalments extending to Nov. 1859. The terms proposed were unanimously accepted, and a very good feeling appeared to be entertained by the creditors towards the firm.

The factors engaged in the general hardware trades are doing but a very limited business. With the very low percentage which, by the competition in the trade, is put upon manufactured goods rendered some departments of the trade profitless, when interest was advanced to present high rates, and the factors were compelled either to raise prices or to reduce the length of the credits given to customers. The difficulty experienced in getting payments for goods, and the general mistrust which prevails, necessarily renders them extremely cautious in executing orders, and, consequently, considerable depression prevails in these branches of trade.

The Lock Trade is, perhaps, as dull as any. The Tin and Japan Trades are considerably slacker than they were a month ago, and several of the manufacturers are somewhat limiting their production. No reduction in the price of tin and japan goods appears probable, in consequence of the fall which has taken place in copper and tin. Several advances in the prices of these metals took place before any rise was determined upon in the manufactured articles, and the advance was not equal to the enhanced cost of the raw material.

The bank in this town opened for the purpose of cashing its own notes on Tuesday. There was no great run upon it, but in two days fully one-third of the notes were presented for payment. It is hoped it will resume business during next week.

A serious boiler explosion, by which one man was killed, occurred yesterday morning at Mr. Davis's colliery, at Spon Lane, near West Bromwich. So far as at present appears, it seems probable that want of a sufficient supply of water was the cause of the explosion. One end of the boiler was blown out, and the brickwork in which it was embedded was blown in all directions.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

DEC. 10.—The principal iron districts continue in a very disturbed state. The strike of colliers at Aberdare has not been brought to an end, but both masters and men declare their determination to maintain their respective points. The proposal of the former is to reduce the price for getting coal from 1s. 9d. to 1s. 6d. per ton, and this they state is the outside price which they can afford to pay. About 6000 men have now turned out, and no reconciliation is likely to be made at present. We have been through the district this week, and have heard many of the colliers state that they would submit to a reduction of 2d. per ton. They have held several large meetings, and passed resolutions for keeping on the strike. Nearly all the works are out, and business is almost entirely suspended. We stated that the endeavour was made last week to prevent the engineers pumping the water from the pits, and also that an application was made for the assistance of the military. On Sunday, 108 men of the 22d regiment were dispatched to Aberdare, and remained till Tuesday, when they were removed to Cardiff, for the purpose of obtaining barrack accommodation. The colliers mixed with the soldiers very sociably, and not the slightest disturbance took place. A body of police were sent to guard the pits, and no further mischief has in consequence been done. The masters have had a meeting, at which they resolved to make no further reduction at present, but, at the same time, to adhere to their former terms. On Wednesday, a large number of the colliers were addressed at Aberdare by Mr. H. A. Bruce, M.P. for Merthyr, but very little effect seemed to be made upon them. They were never more obstinate than they appear to be now, and we fear a long and disastrous strike is before us.

The course the men are taking appears the more unreasonable when all the circumstances of the case are taken into consideration. Nine years ago they struck for the very sum they now refuse to accept, when 1s. 4d. per ton was offered them. At that time provisions of every sort were much dearer than they are at present, and they could live much better on 1s. 6d. a ton now than they could have done then on 1s. 9d. Last winter they had to pay heavier for everything they wanted than at present, and at the reduced wages they would be actually better off now than they were then. It cannot, therefore, be want which has caused them to strike. They have no particular grievance to complain of, with the exception of the colliers' invariable complaint, "interruptions." That even this is unfounded, is evident from the fact that the Messrs. Powell, very large employers at Aberdare, have occasionally offered to steady colliers the situation of firemen, at salaries of 4s. 6d. per day, and the same refused, on the ground that they could earn more money at their ordinary occupation In the pits of this firm the stoppages do not average more than four days a month, and if the men chose to be steady their work could be constant. They have preferred getting drunk on Monday and Tuesday, and the result has been that extra men are obliged to be kept at work. The principal inconveniences the colliers labour under have been brought on by themselves, and their extraordinary improvidence renders poverty inseparable from them. The strike was made just after pay was received, so that the majority have a little money still in hand. A portion of the men employed by the Messrs. Fothergill have returned to work, but intimidation is used to dissuade others from following their example.

The men at Merthyr have acted more wisely than their neighbours. It was feared that they would have caught the contagion, but they have agreed to submit to the reduction of 20 per cent. The Risca Coal Company's hands are all under notice of discharge. The Monmouthshire coal proprietors generally have resolved to adopt similar courses, and notices have been issued that a reduction in wages will take place after Dec. 31. At Abercarn, no reduction in the wages has yet taken place.

The Tin Trade is in a most depressed state, and the Pontymoile and other works are doing very little business. The slackness is not confined to the locality, but is general throughout the district.

In consequence of a serious dispute between the Taff Vale Company and the freighters, scarcely any coal can now be shipped at the port of Cardiff; this, combined with the Aberdare strike, threatens to injure the trade seriously.

ABERDARE, FRIDAY.—The address delivered by Mr. Bruce, together with an intimation from the masters that unless the men returned to work at present prices no further opportunity would be afforded them of doing so, appears to have had a sensible effect. The disposition of most of the colliers is now to return to work, but a meeting is to be held to-night, or to-morrow morning, in order to settle the point. Some resist yielding, but it is said that the majority are more favourably disposed.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I am pretty well acquainted with the South Wales iron manufacture, and with the Welsh workmen, and I beg to be allowed to say, through your Journal, that the local papers scarcely do justice to the forbearance of the Merthyr men. The Aberdare colliers have not only struck, as, after due notice, they had a right to do, but they are injuring the machinery of their employers, and interfering with the free will of their fellow-workmen, which they have no right to do, and which has set public feeling against them. The men about Merthyr, though in close communication with Aberdare, have taken a different course. They are aware that the Merthyr masters resisted a reduction of wages last summer, when notices were issued in Monmouthshire; many of them have saved money during the past good times, and very many of them read the London newspapers, and are aware that the pressure is to the full as heavy upon the masters as upon themselves. The men have before them, it is true, the prospect of half-work at low wages during the next two months, but provisions are cheap, and they are well aware that the masters have had losses which, even with their means, are reported to be serious. These considerations have affected the men in different degrees, but the general result has been a line of conduct on their part that does them the highest credit, and that ought not, and I hope will not, be forgotten by the masters when times come round.

Allow me also to correct a statement contained in your own columns. It is not true that any South Wales, or, indeed, any private firm has been assisted by the Government. Whether such applications have been made I know not, I have heard of none; but it is obvious that no Government could, in justice to the community at large, assist a private firm. It is, indeed, understood that one or two firms possessing immense private wealth have, upon due security, had advances from the banking department of the Bank of England, but this is a very different thing. As to the number of men dependant upon the ironworks, the suspension of the largest of them, or of any one group of them, would produce nothing like the distress which has been occasioned by the failure of the Newcastle Bank, which is said to have ruined or seriously injured 30,000 families.—*Dec. 7.* TEBBO-GALLATE.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

DEC. 10.—We have nothing of any material importance to notice this week in the present position or future prospects of the trade. The object of the ironmasters appears to be a curtailment of operations to the lowest possible limit. A number of houses in Yorkshire and Derbyshire have given notice to their hands of short time, and in many instances of a reduction in wages. The demand for malleable iron is confined to immediate requirements. The enquiry for home consumption is limited; and, as is usual in periods of depression, there is much underselling taking place.

The Coal Trade is tolerably active, owing to the natural demand at this season, and prices continue to range at the limit which has marked operations for some time past. At most collieries the men have received notice of a reduction, to take effect at the latter end of the present or the beginning of the new year.

Up to the present period the bodies of the four unfortunate men suffocated at the Hollingwood Pit, Staveley, have not been recovered, but it is expected that measures will be taken in a few days to recover them. There has been every precaution taken to avoid a further calamity by the opening of the brick stopping, and the delay which has taken place has been the result of advice from men eminent in the management and working of collieries.

The recent derangement of the monetary system has produced a great depression in the iron trade of the Cleveland district, in which above one-fourth of the furnaces have been blown out. The stocks on hand were large, and the present measures will have the effect of reducing them. The ironmasters gave notice of a reduction in the wages of the men, which has been accepted in an orderly manner, the workmen perceiving its fairness, owing to the present depressed state of trade.

There having been several boiler explosions recently in the West Riding, the necessity of adopting some measures of prevention has so forcibly impressed itself on the minds of the large millowners, that a movement has been commenced for the formation of an Association for the Prevention of Boiler Explosions. A meeting for this purpose was held at Huddersfield on Wednesday, which was attended by all the large millowners in the district. Mr. J. Brooke, magistrate, was called to the chair, and he highly complimented Mr. Edward Armitage for the labour he had taken in calling public attention to the subject. Mr. Armitage read the rules of the Manchester Association, and laid before the meeting the correspondence he had had with the secretary as to the possibility of the millowners of Huddersfield joining it. The Manchester association offered to provide a resident inspector, providing manufacturers working in the aggregate 40 boilers would join the association. A discussion took place; one portion of the meeting thought the West Riding of Yorkshire ought to have an association of its own, whilst others contended that a great advantage would be gained by joining the Manchester society. A motion was made to that effect; which was followed by an amendment for the formation of a West Riding association, but on the votes being taken the motion was carried by a large majority.

The dullness in general trade has had a depressing effect on mining investments, as well as on stock generally. The North Derbyshire shares are quoted at 5s. discount, but this arises from an intended call, together with a temporary stoppage of the works occasioned by another breakage. The company intended to put down a large engine at Calver Sough, but as a call will have to be made to raise additional capital, a general meeting of the shareholders will be held shortly.

The Mill Town Mine is looking exceedingly well, and it is calculated that the company will have 100 loads of ore for sale at the next reckoning. There are some good pieces of work at the shaft.

The Stoney Way Mining Company are proceeding satisfactorily with the sinking of the shaft. The shares in this mine are quoted at one-half the price they were valued at a fortnight ago.

The Mill Dam Mining Company will be in the full possession of their property on Jan. 12 next: the lessees whose interest the company have purchased had out-let the working of the property, under an agreement which expires on the day just named, and the company preferred incuring a little delay to paying heavy compensation.

We understand that the Eyam Company have declared a dividend of 1l. per share on seven weeks' working. The company are spending a great deal of money on an extension of their works, and this is the reason, I believe, why an earlier dividend has not been declared.

GOVERNMENT SCHOOL OF MINES.

On Monday, the lecture by Mr. WARINGTON SMYTH was a continuation of that on "Stream-Works and Quarries." The lecturer, in his preliminary remarks, alluded to what had already been adduced on the subject. In our own country, one of the most interesting stream-works was that at Wheal Virgin, in the county of Cornwall. In selecting stream-works before they came to the shelf on which the alluvium was deposited, it was always a matter of calculation to ascertain the cheapest mode in which they could dispose of the overburden, and the quantity of material to be removed, as well as the value of the deposit; at the same time, they must estimate its difficulties and cost. The first which had to be taken off was the vegetable mould, or, as it was called by the miners, "the meat earth:" this was generally placed in heaps by itself, and afterwards carefully returned and spread over the ground. A diagram was then shown and described, of the various strata to be arrived at previous to coming on the deposit, as well as the mode of diverting the stream, and the methods which the old tinners pursued to obtain the ore.

Quarries were sometimes worked open, and at other periods closed. With regard to the latter, he need but passingly allude to the catacombs of Paris, which had produced the building stone so famous in that city, and at the same time had such an historical repute. Another noted place was at Maestricht, in Holland. In our own country, they were generally worked open, although in some instances underground operations were carried on. At Bonn, on the Rhine, they pursued a most wasteful way of obtaining the brown coal, or lignite. He gave them this as an example of what should be avoided. There they in general sunk shafts to a certain depth: one of these worked out, another was sunk near, a wall being left between the two; and so on, that a number of squares might be made with these four walls between. None of the lignite could be extracted from thence, and there was danger of the one in work being inundated by the waters which must necessarily accumulate in those which were abandoned. Another method was by having two shafts sunk; then connected to each other by a level, cross-cuts being driven. This, as well as the mode of excavating by arches, where a great quantity is left, was shown by a diagram, and was illustrated as to the wasteful methods, and disregard of economy, which are practised in those localities.

He would now come to slate quarrying. This was a question which much depended upon the geology of the locality, but on that subject he would not enter. Slates, they were aware, differed much in their quality. He was not about to refer to those of Scotland and Ireland: those in England were principally in Cornwall and Cumberland, more especially in North Wales: they were generally in the Cambrian or the Silurian rocks. Much depends upon the cleavage of slates—that is, the direction in which they split, which is commonly called by miners in some districts "the split." This is difficult to arrive at in stratified rocks. Sometimes the beds are horizontal, at others contorted. The cleavage in general is more uniform in direction than the bedding, and hence mistakes are sometimes made by quarrymen. A specimen of the Bangor slate was shown: the cleavage was illustrated, and how the slight marks in the slate afforded a clue to the bedding. A diagram was then given of the mode of working the quarries in the neighbourhood of Festiniog. There was no uniform mode of working slate quarries: this must be performed by such methods as circumstances and experience dictated. It was, no doubt, true that in many slate quarries colossal fortunes had been made, but, on the other hand, there was no question that great ruin had often accrued from them; and it had sometimes cost as much as 40,000*l.* to open a quarry before anything had been obtained from it. Admirable specimens had been sent up to London offices. The small slates produced had been very good, but there were none large; and as it was nearly the same expense to cut and produce the large as the small, they could easily see why a quarry which produced scarcely anything but small slates could not pay, while those returning the larger could give commensurate profits. One of the largest quarries near Bangor—that belonging to Col. Pennant—was worked in the form of an amphitheatre, step by step. The mode of blasting practised here was described, as well as the method of taking out the slates. The lift must not be too high, as, when the slate is thrown down, especially if it be of a tender nature, care must be taken that it is not broken. There is always a great quantity of rubbish, and great expenses are incurred in the taking of this away. Accidents occasionally occur from falls; the water percolating through a split, and expanding after a frost, may be highly dangerous. Occasionally these quarries will be worked so deep that they are not safe; and when there are not a sufficient number of setts of, there are oftentimes instances where they are dangerous. A fall may throw down from 40,000 to 50,000 tons of rock, and the removal of this mass not only entails a considerable expense, but may retard operations for two or three years. Several of the Festiniog quarries were opened first by surface workings; and afterwards by a series of underground explorations, similar to those pursued in mining. The ground was occasionally worked in a series of stalls. The men there, who were generally active, would drive in a borer at the surface, to which a rope was attached; and by a heavy hammer they would break off the jutting pieces of rock, or, if necessary, blast them, being drawn up as soon as these were fired. At the Royal Bangor Slate Quarry, they had put down holes of 5 inches diameter; and they used a steam machine, invented by an American, which lifted the borer up, and turned it just the same as a man's hand would do. In order to show how dangerous these works were in some places, he could only state to them that on the surface there were large chasms, which were oftentimes filled with water to a great extent.

With regard to open works for ores in this country, he would refer to the tin mine of Carclaze, near St. Austell. In other countries, especially Scandinavia, he would allude to the large copper mines of Falulun, and the far-famed ironworks of Dannemora, as well as those of Fesberg, in the same country. There was a large open-cast in Anglesea, at the Parys and Mona Mines. The works at Vœrospatak, in Transylvania, were worthy of notice: there a large quantity of open work at been done by the Romans. At some of these mines, as the open work advanced, they had found it necessary to sink a shaft, and conduct mining operations systematically; but there was always danger to be apprehended from the overhanging rock.

The lecturer then alluded to the methods by which coal and ironstone were worked in Derbyshire, from the outcrop, as well as the mode of excavation by bell-pits. They were all aware of the manner in which the salt mines in Cheshire were worked, and he need not describe to them the mines in Poland, situated near Cracow. There were some beds in Hungary and Transylvania, which he would allude to: these were in a country on the borders of Moldavia, and over them was situated an impervious bed of clay, so that the water could not penetrate. A shaft was sunk, a gallery cut, and an arched chamber afterwards formed, which was so large that the Monument might be placed in it. This was illustrated by a diagram, and the great quantity excavated shown. Allusion was then made to the imperial works at Marousch, in the same country, and the mode of working there described.

The lecture by Dr. PERCY was on the "Manufacture of Brass." The furnaces where the process of cementation was carried on were first described. Several of these stood side by side; they were covered with a dome like a glasshouse; there is no chimney, and a cover fitting over the top, which can be removed at pleasure; the air is admitted from without. It had been stated that the tending of brass furnaces was prejudicial to health; but he at one time, some years since, had met an old man who had been 60 years employed in these works, and by the side of the furnaces he invariably took his rest, for they demanded constant attention. The width of the furnace is 3 ft. 6 in., and their height to the collar is the same. The pots, which are made of Stourbridge clay, are 12 in. deep by 8¼ wide, and there are nine pots in each furnace. The duration of the heat, or charge, is 12 hours, and the fuel employed is coal, the calamine being ground very fine. The proportions are—64 lbs. feathered shot copper, calamine 88 lbs., and coal stack one bushel. The pots are taken out by a stout pair of tongs, the metal is struck, and then shifted from the several pots in order to fill one, as each of these contain but a small proportion of metal; the brass is then skimmed, and poured into ingot moulds, formerly this was done in forms between granite slabs. This brass was good for the manufacture of buttons where soldering was required; the wire was likewise used by paper makers in the construction of their sieves. The difference of the processes of cementation and melting were then described. A patent had been taken out in 1810 for a peculiar adoption of brass; this, however, had long been used at Nuremberg, which was famous for the manufacture of foils. Cramer, in his work on assaying, which is a very useful book, mentions a mode of making brass by mixing calamine with carbonaceous matter and copper embedded in clay; the great point is to regulate the temperature of the copper, and adding the zinc to the melted copper, taking care that the former metal is not too much volatilized. A patent for the manufacture of pots, composed of a mixture of coke and Stourbridge clay, had been taken out some years since by a Mr. Ansted. In Birmingham the furnaces employed were square, while those used in London are round, and the fuel employed is coke; in reverberatory furnaces there was always a greater loss. There were several varieties of brass, and the number of these caused great confusion, as in many instances they did not materially differ. He would give a few of these:—1, a compound of 60 parts copper and 40 zinc, this was Muntz's metal; 2, 64 copper and 36 zinc; 3, 80 copper and 20 brass, this might be supposed to be about 2 parts copper and 1 zinc—tombac and other alloys under various names belonged to this class; 4, 69 copper and 31 zinc, called by the French *cuivre jaune*, this is very suitable for hammering; 5, 61 copper and 36 zinc, the copper here employed was best select, and this was useful for brazing iron; 6, 75 copper and 25 zinc; 7, 71⅛ copper and 27⅛ zinc. In general, common brass may be calculated to contain 2 parts of copper and 1 of spelter; the specific gravity is greater than the mean of the two metals, and varies from 7·8 to 8·4. The melted metal varies according to the temperature at which it has been heated: it can be broken the same as an ingot of copper, and the fracture in general is fibrous, sometimes, however, it is crystallised. A piece of brass of a fine colour and highly crystallised, which had been accidentally made, was then exhibited, and specimens of the different compounds shown. There was the metal called tombac; from this Dutch metal was made, its composition was copper 84·5, zinc 15·5, of a pale yellowish red colour, and could be beaten out into leaves 1-52900 in. thick, was malleable, and adapted for gilding. Prince Rupert's metal was copper 85·7, zinc 14·2; another, copper 75, zinc 25. There was similar, or Manheim gold; this was very like Prince Rupert's metal, being composed of copper 83·3, zinc 16·6. Mr. Mallet had investigated these alloys, and they would find this detailed in Gmelin's "Handbook of Chemistry," which had been translated by the Cavendish Society. The original paper, he believed, had been read at the British Association. There was a work written by a practical man, an American, who had been at Woolwich; there was a great deal of confusion in the book, but, nevertheless, much practical information might be gleaned from it, if you knew where to pick it out. An alloy of 50 parts of copper and the same proportion of zinc is used for a particular purpose as a sawder. Some quantities of this were, during the gold mania, manufactured in Birmingham, he did not believe by any respectable firms, and exported to California and Australia, and sold there as gold dust. A specimen of this could be seen in the Museum, which was very deceptive to the eye of unpractised persons. In the Supplement to Dr. Ure's "Chemical Dictionary" there was much useful information on this subject. Muntz's metal was manufactured on an enormous scale; it was generally used in the mercantile marine, the Admiralty still employed copper. Mr. Faraday had told him that in some of this metal, which had been long exposed to the action of sea-water, the zinc had entirely died away, yet no hole remained for the barnacles to stick on. Some years since Mr. Muntz had applied for an extension of his patent, but this was not acceded; he confessed then that he had made by it a profit of 68,000*l.*, when he died he left 600,000*l.* Dr. Percy here paid a passing tribute to the memory of Mr. Muntz as an employer, and cited the great respect he was held in by all classes of society in Birmingham. The copper used was always best selected; a subsequent patent was taken out by the same gentleman, in which lead was claimed. The nails were defective, and broke off at the heads. The composition of these was—copper, 52·75, zinc, 41·18; lead, 4·72. A metal of this kind, which was to be remelted, nearly led to a ruinous lawsuit, which was judiciously compromised, it being imagined that the metal had been adulterated. The composition of some nails that had been two voyages to the East Indies and back without corrosion was as follows—copper, 62·42; zinc, 24·54; lead, 8·69; tin, 2·64. The nails employed in sheathing at Portsmouth were composed of—copper, 86·82; tin, 9·30; zinc, 3·88.

The lecturer then exhibited a piece of cast Chinese brass which had been forwarded by Mr. Parkes, our Consul at Canton; its component parts were—copper, 56·59; zinc, 38·27; lead, 3·30; tin, 1·08, and iron, 1·49. A little addition of lead improves the turning, it is usual to put this in just before the pouring out; the proportion in general was 3 ozs. of lead to 10 lbs. of brass. The presence of lead in small quantities is injurious to the plating; it is usual to add here about 5 per cent. of calamine brass; when lead is present it is said to blow up the silver. Sometimes you require to harden it, as in door-plates, a little tin is here added. There were some curious properties connected with brass wire: if this is drawn out in the usual way, taken off the drum, and then attempted to be annealed, it will break to pieces,—a man takes the coil, shakes, and gives it a concussion on a bench. In the rolling of brass defects will be often observed, and this had occurred in the case of some that had been made from Australian ores; this might be attributed to the presence of the antimony they contained. When brass wire is kept in a state of tension it will break; and they had heard of chandeliers which had been suspended for a considerable period often suddenly falling. A composition of 63 parts of zinc and 37 of copper is used by watchmakers. The sand in Birmingham is obtained from the cemetery in that town; the brass is cast in ingots, open or closed; after the brass is rolled it must be annealed; the scale is taken off by dilute sulphuric acid, and then it is scoured with flannel and sand; in order to prevent its being tarnished it is lacquered, which is a composition of spirit, shellac, and resinous matter. Several of these facts he did not give from his own experience, but as they had been related to him by practical men; and there were many points which, he had no doubt, at a future period they would find of great utility to them.

THE FORMATION OF FAULTS AND CLEAVAGES IN STRATA.

Mr. Joseph Dickinson, F.G.S., Inspector of Coal Mines, read an interesting paper upon this subject before the Manchester Geological Society, on Tuesday. Various opinions have been offered upon the formation of faults and cleavage—some attribute the former to subsidence alone, whilst the latter is variously ascribed to electro-magnetism, heat, force, &c. That both have been governed by some fixed law is apparent to everyone who has given the subject sufficient attention to venture an opinion. The fact that most of the main faults run in a particular direction, and are crossed by others at a particular angle to them, shows in itself that something besides chance has assisted in their formation; and the same applies to cleavage.

Commencing with faults, he would first notice the trap dykes and semi-stratified basaltic greenstone, which are common in Irish, Scotch, North of England, and Staffordshire coal fields, although seldom, if at all, met with in Lancashire, Cheshire, South Wales, &c. Trap dykes resemble ordinary faults filled with trap rock, usually in the coal measures called whin. They vary from a few inches to a few feet in width, and are supposed to widen out as they get deeper. The semi-stratified basaltic greenstone—floating whin and whin-sill—lies in beds several yards thick, and has generally a uniform surface at the top and bottom, but, unlike other strata, it sometimes gradually protrudes through the adjoining stratum, and occupies a position in another part of the series. In common with dykes, it not unfrequently alters the character of certain strata adjoining—coal of a bituminous quality in the surrounding neighbourhood becoming anthracite when near this rock. This striking change seems to have led many to believe that the rock is of igneous origin. There are, however, many circumstances in connection with it which are opposed to this view: for instance, shale in contact with trap rock often shows no sign of heat, and the trap rock itself, especially that called floating whin, contains iron and lime in combination with carbonic acid, which is incompatible with heat. The trap rock is also of a crystalline structure, and becomes a glassy slag when melted. It is probable, therefore, that such rocks have been protruded in a fluid state, but not molten, and that they have possessed the property of absorbing or dispelling some of the oxygen and hydrogen contained in adjacent coal seams. The common supposition that ordinary faults or dislocations are simply cracks which have been occasioned by subsidence and heaving of strata in the ordinary process of consolidation, and which have become filled up with the debris of adjoining strata, pulverised into clayey matter by sliding past each other, is probably correct in many cases. But the fact that the faults run in a prevailing direction seems to indicate some other cause also. The striæ, or (as they are sometimes called) "slickensides," upon the sides of the faults are scarcely such as would be occasioned by the mere rubbing of two ordinary pieces of rock together; besides, the regularity of bedding in the fault, especially observable in mineral veins, each indicate some cause in addition to mechanical action. The striæ are particularly important, and afford data as to the direction of the throw of the fault or mineral vein. This, he believed, he was the first to notice. They are not ordinary scratches, but they tail out and overlap each other, like the scales of a fish, the side which has apparently slipped down having the scales pointing upwards, whilst those on the opposite side point downwards. The direction of the throw, without these data, is usually determined by the underlay of the fault, and the direction in which the contents are turned, which are generally a sufficient guide for the coal miner, but in working a mineral vein where it intersects a cross-vein at or about a right-angle, and is thrown laterally, much uncertainty sometimes exists as to the side to which the vein is thrown. In such a case the striæ generally afford decisive proof, care being taken to get the outer surfaces of the vein or fault, and not detached inner portions, which are sometimes variously striated. In most of the large faults, however, as evidenced by the striæ, the throw has been up or down; some have the deep-grooved striæ up and down, with smaller striæ on the prominent parts of the main striæ, showing a double movement, whilst others have only lateral striæ. Temperature in strata is found to be increased in proportion to the depth. It is also frequently found to be higher in faults and mineral veins than in the adjoining strata. This latter difference may arise from friction or chemical action, or possibly the fissure is a conductor of heat, or an outlet for the warmer water in the strata below. The increased temperature sometimes extends to the surface, where its effects have been looked for in tracing out main lines of dislocation by the difference in the dew point, especially after daybreak in a summer's morning, or in frosty fogs. The evidence so afforded is, perhaps, the secret upon which pretended revelations by the dowsing rod are founded. As to cleavage, perhaps with the exception of the slate, in no other for-

sion is it so well defined as in the carboniferous series. So important is it in coal, that it generally determines the direction in which the seam is worked. It is of two kinds, one of which is commonly known as the board cleavage, and the other the slip cleavage. The board cleavage takes its name from its resemblance to thin boards or plants laid together, and prevails extensively in the midland counties and the North of England. In the bone coal of Lancashire, which is synonymous with the splint coal of Scotland, and also in Cannel coals, this cleavage is least perfect; and in some of the hard furnace coal of South Staffordshire the cleavage is cubical. The slip cleavages pervade generally the South Wales and Bristol coal fields; also those of Belgium, parts of Germany, and the north and south of France. In the lignite of Rovey Tracey a few upright slips may be observed, but they are not well defined, and instead of board cleavage, there are similar laminæ, but lying horizontal.

Taking these matters into consideration, it seems probable that the directions of both faults and cleavage have been governed by electric or magnetic agency; that the strata have been acted on in a fluid or soft state; and that, as regards coal in particular, decomposition has taken place and crystallisation ensued, the forms being governed by the same law as that which governs the formation of the most perfect and minute crystal.

PECULIARITIES IN THE MICROSCOPICAL STRUCTURE OF CRYSTALS.—Mr. H. C. Sorby, F.R.S., read a paper of an interesting and original character at the last meeting of the Geological Society. He stated that when artificial crystals are examined with the microscope, it is seen that they have often caught up and enclosed within their solid substance portions of the material surrounding them at the time when they were being formed. Thus, if they are produced by sublimation, small portions of air or vapour are caught up, so as to form apparently empty cavities; or, if they are deposited from solution in water, small quantities of water are enclosed, so as to form fluid cavities. In a similar manner, if crystals are formed from a state of igneous fusion, crystallising out from a fused stone solvent, portions of this fused stone become entangled, which, on cooling, remains in a glassy condition, or becomes stony, so as to produce what may be called glass or stone cavities. All these kind of cavities can readily be seen with suitable magnifying powers, and distinguished from each other by various definite peculiarities. From these and other facts, it is concluded that crystals containing only cavities with water were formed from solution; crystals containing only stone or glass cavities were formed from a state of igneous fusion; crystals containing both water and stone or glass cavities were formed, under great pressure, by the combined influence of highly heated water and melted rock; that the amount of water present in the cavities may, in some cases, be employed to deduce the temperature at which the crystals were formed; crystals containing only empty cavities were formed by sublimation, unless the cavities are fluid cavities that have lost their fluid, or are bubbles due to fusion; crystals containing few cavities were formed slowly, in comparison with those of the same material that contain many; crystals that contain no cavities were formed very slowly, or by the cooling from fusion of a pure, homogeneous substance. He is prepared to demonstrate these results by means of the microscope, and indicated a mode of making that instrument reveal an approximation to the temperature at which an igneous rock was formed. Mr. Sorby concludes that granite is not a simple igneous rock, like a furnace slag or erupted lava, but aqueo-igneous rock, produced by the combined influence of liquid water and igneous fusion, under similar physical conditions to those existing far below the surface at the base of modern volcanoes. His deductions strongly confirm the views of Scrope, Scheerer, and E. de Beaumont, and he agrees with them in considering it probable that the presence of water was an instrumental, if not the actual, cause of the difference between erupted trachytic rock and granite. Col. Portlock expressed a high opinion of the value of the paper, from its placing an additional instrument at the disposal of the geologist. The discussion on the paper was postponed until the next meeting, when we shall again refer to the subject.

PREVENTION OF SMOKE.—In our last Journal we noticed Mr. Apsley Pellatt's paper "On the Comparative Heating Properties of Coke and Coal in Regard to Economy, and the Prevention of Smoke;" but, as a very interesting discussion took place after it, we purpose reverting to the subject. Mr. Chas. Wye Williams said that, although Mr. Pellatt had done him the honour to quote somewhat extensively from his works, he differed entirely from his conclusions on several important points. It was not the fact that coke possessed superior, or even equal, heating properties with coal. It was true that he (Mr. Williams) had dwelt upon the loss of heat in the generation of gas, but he did so to show that unless they turned those gases to account they lost all the heat that was absorbed in generating them. He thought the author of the paper had misapprehended his views. In Liverpool the prosecutions under the Smoke Act were very frequent, and they were obliged to use coke or anthracite: they could not burn common coal in their furnaces, simply because they did not admit sufficient air into them. A recent instance of the mistakes into which engineers sometimes fell was afforded in the case of the boilers of the *Leviathan*. He must say they presented the greatest violation of natural and chemical laws that he had ever witnessed. He defied them to burn coal in the furnaces without great waste of fuel and enormous evolution of smoke, and they must use anthracite. The same remark applied to the *Great Britain*. Each double boiler of the *Leviathan* contained 12 furnaces, and about 400,000 cubic feet of air per hour was required for proper combustion of the gas alone; but how was the air to get into the furnaces? It appeared as if care had been taken to exclude it. Mr. Fred. Pellatt said that for many years he had used small coal in the melting of glass, consuming about 30 tons per week, but that, notwithstanding the prejudices of himself and his workmen, he was induced to try coke. Eighteen months' experiment had proved to him that they practically got the same amount of work from 13 cwts. of coke as from 21 cwts. of coal. Mr. Lee Stevens dissented from the general conclusions arrived at by Mr. A. Pellatt; but, as regarded the advantages of the use of coke in certain manufactures, such as glass, he had no doubt whatever, because his own information and experience enabled him to verify Mr. Pellatt's. In a few cases also coke might be more beneficially employed for small steam-boiler purposes, but certainly not as a rule. The heat from a coke fire, like that from anthracite coal, was a concentrated, and not a diffusible, heat: but for large steam-boilers of all kinds, in which it was desirable to have the greatest amount of heating surface, gas-producing fuel (and the more bituminous the coal the better), by affording the means of enlarging and lengthening the flame, must necessarily be the most economical and effective. After some remarks from Mr. B. Fothergill and Mr. Greaves, Mr. Hyde Clarke said that in an establishment abroad, with which he was connected, the consumption of coals amounted to about 50,000 tons of a year, at a cost 2*l.* per ton, including freight. Economy of fuel was, therefore, in such a case, a question of the greatest importance. Coke had been tried in the same establishment, but without success. There was a fact which ought not to be lost sight of in this discussion—that a saving of as much as 10 per cent. could be effected by proper attention to the system of fuelling. He thought for a question of this kind, where everything depended upon the conditions under which the experiments were made, they had not sufficient details at present to enable them to arrive at definite results. In the instance mentioned by Mr. Fred. Pellatt it was probably a case of fresh coke compared with stale or badly stored coal. Mr. Wenham described a simple and effective method of preventing smoke, discovered by Mr. Muir, of Glasgow. It was not patented, and did not interfere with existing patents, therefore anyone could use it. It was applied to a short cylindrical boiler, having an interior flue containing the fire-place. On both sides of the inner flue there were a number of tubes below the water level for bringing the hot air and flame back again to the chimney, which was placed in front. At the further end of the boiler there was a double iron casing or smoke-box, which covered the end of the fire-flue and return tubes. Mr. Muir, finding that this double casing became inconveniently hot, drilled a number of small holes through both the plates, with the view of admitting a current of cold air between them to keep them cool. The immediate result was that it became a most perfect smoke-consuming apparatus; indeed, smoke could not be made, however bad the fuel, which was coal, or carelessly the fire might be stoked. At the request of Mr. Blashfield, Mr. H. Doulton explained the apparatus he had in use, and thanks were voted to Mr. A. Pellatt for his paper.

THE IRON TRADE OF THE NORTH OF ENGLAND.—In a town like Newcastle, deriving its importance exclusively from the great development of its coal trades and manufactures, little apology can be required for drawing the attention of our readers, during the present state of commercial affairs, to a branch of industry that has in our own neighbourhood within the last five years become one of greatly increased magnitude, presenting a growth which, for rapidity, we believe is without a parallel in the industrial annals of this country. We allude to the iron trade. Within the short period named, owing to the discovery of immense beds of ironstone in the Cleveland Hills, and the facilities of procuring ample supplies of fuel from our well-known coal fields, the North of England bids fair to become, at a very early period, a formidable rival as an iron-producing district to Scotland, Staffordshire, and South Wales, localities which have been considered hitherto the chief seats of the iron trade of the United Kingdom. How far this assertion is justified may be gathered from the fact that, in the three districts just named, and where the manufacture of pig-iron has required not less than 30 to 50 years to mature it, the production given in the Government returns for last year was:—Staffordshire, 907,731 tons; South Wales, 877,150 tons; and Scotland, 880,500 tons: whereas the furnaces now supplied with ironstone from the Yorkshire hills yielded, during the same period, 510,770 tons, or near one-sixth of the entire produce of the United Kingdom. At present, with one or two exceptions, the mines in Cleveland are held by only four firms:—Messrs. Bolckow and Vaughan, Middlesbro'; Messrs. Pease, Darlington; Messrs. Attwoods and Barings, Towlaw; and Messrs. Bell Brothers, Newcastle. Of these houses, the first three, in addition to supplying their own furnaces, are large vendors of ironstone; whilst our townsmen, Bell Brothers, either at their own works or at furnaces they are concerned in, smelt the entire produce of their mines. From their early acquaintance with the district, these firms, it is understood, have secured under lease by far the best portions of the mineral fields it contains; but in addition to these mines, Messrs. Palmer, on the coast near Staithes, and the Swainby Mining Company, and Messrs. Wren, on the North Yorkshire and Cleveland Railway, are also in a position to work considerable quantities of ironstone from their mines; but in all these cases the ironstone is much less abundant than on the four royalties first-named. The great demand which has prevailed during recent years, added to these mineral resources, has produced the results given above; and we regret to find that the prostration of commerce generally has extended its influence to the iron trade of the North to such an extent, that at a meeting of the leading ironmasters, held at Middlesbro' a week ago, it was decided to extinguish above one-fourth of the furnaces of our neighbourhood, the effect of which will be a weekly decrease of something like 5000*l.* in workmen's wages. A necessary accompaniment of so rapid a rise in the iron trade has been a great demand for labour, and consequent increase in wages. Now that this extraordinary requirement has ceased, owing to the present unfortunate aspect of affairs, the workmen themselves cannot be surprised that the ironmasters should ask their workpeople to bear their share of the general depression. The terms offered by the trade generally are a reduction in all to 15 to 20 per cent. of their former earnings, and although this, no doubt, is a serious change, it is gratifying to learn that even on the new scale blast furnacemen will be able to earn from 30s. to 40s. per week, and ordinary firemen and assistants from 19s. to 24s. per week; and at the ironstone mines men, who half-a-dozen years ago were agricultural labourers at 2s. 6d. per day, will still be able to earn from 3s. 6d. to 4s., although their less favoured brethren in the Staffordshire pits can get only 2s. 9d. at the present rates. Under all the circumstances, then, the labourers engaged in this business have little reason to complain; and it is a subject of pleasure to learn that, with few exceptions, the men themselves agreed at once to accept their masters' terms, so that we see no prospect of apprehending such disturbances or distress as unhappily have recently occurred in the iron trade of the North; in the meantime we cannot help feeling that both masters and men have adopted a course most likely to promote an early return of healthy activity.—*Newcastle Chronicle, Dec.* 11.

WEEKLY LIST OF NEW PATENTS.

GRANTS OF PROVISIONAL PROTECTION FOR SIX MONTHS.—J. M. MUNRO, jun., Bristol: Metal wheel-stock.—T. RICHARDSON, Newcastle-on-Tyne: Treating manganese ores.—W. H. BELL, Felton, Durham: Permanent way of railways.—C. W. WILLIAMS, Liverpool: Steam-engine boilers.—M. PLUCHET, Paris: Permanent way of railways.—Rev. T. H. H. KELK, Tonge, Ashby-de-la-Zouch: Metallic alloys.—W. CLAY, Liverpool: Metal knees employed in the construction of ships, buildings, railway or other wagons or carriages, or other analogous purposes.—R. GORDICKE, John-street, Bedford-row: Suspending of the lines of electric telegraphs in the air by means of gas balloons across water and land, or the atmospheric telegraph.—B. KEIGHTLEY, Lofthouse, Wakefield: Indicating and registering the flow or supply of air to mines and other places requiring ventilation.—H. WALKER, Mirfield, J. BEAUMONT, and J. GOTHARD, Huddersfield: Steam-engines.—P. A. BAUSSAUT, Mont. de Marsan, France: Anti-friction apparatus for shafts, axles, and other revolving surfaces.—WILLIAM ARCHIBALD COOPER, Dungannon, Ireland: Navigation of steam and other vessels.—N. F. CHODZKO, Paris: Furnaces for heating boilers.—W. MCFARLANE, Glasgow: Moulding or manufacturing cast-iron pipes and other generally similar hollow articles.—C. BARLOW, Chancery-lane: Steam and air-engines and furnaces therefor.—A. and J. MARTIN, Trieste: Cleaning and preventing the formation of deposits and incrustations in steam-boilers.—A. VANDELEUR, Royal Arsenal, Woolwich: Construction of fireplaces and passages for air of air furnaces, by which (without machinery) the intensity of the fire is increased, a saving of fuel effected, and the smoke consumed.—W. BINNS, Claremont-villa, Brompton: Treatment and application of sureharged or superheated steam.—F. G. SPRAY, London: Manufacture of gunpowder.—D. LANE, Cork: Lighting, regulating, and extinguishing street and other gas lamps by means of electricity.

GOLD QUARTZ TESTING MACHINE.—Mr. John Phillips, formerly of Cornwall, but now surveyor to the Colonial Government of Victoria, has invented a machine for the purpose of valuing gold with quartz. This has been practically tested in the colony, a piece of the value of 320*l.*, belonging to Mr. J. Dixie, gold buyer, of Ballarat, having been tried by it. A severer test has been made of its capabilities, by taking a mass of solid gold and a piece of pure quartz, and then treating them as a specimen of united quartz and gold. Its efficacy depends upon the homogeneity of the natural bodies, as proved by the following data:—Specific gravity of quartz, 2·63; specific gravity of pure gold, 19·20; prize per ounce, 4*l.* The invention determines two things—the specific gravity, and the value per ounce—and consists of the practicability and form of the device, and then graduating mathematically the upper and lower beams for the several results. The inventor submits it to the secretary of the Royal Society in London, the Royal Academy of Paris, and the Philosophical Institute of Victoria, praying for the meed of praise which is due to an unique feat of scientific elegance and simplicity, with the expression that a thing so comprehensive should be only useful to such a paucity of mankind. Without expressing any decided opinion of the merits of Mr. Phillips's invention, we can only regret that it was not introduced here, as, if it were practical, much of the expenditure wasted on the gold delusion might have been applied to more useful purposes.

STEAM HAMMERS.—Mr. John McDowall, Walkinshaw Foundry, Johnstone, provisionally specified an invention which relates to the arrangement of the parts of steam hammers, and to the system or mode of actuating the hammer. The stationary parts of the machine consist of a rectangular cast-iron base, which supports a column or pillar. To the upper part of this column is bolted a plummer block, which carries a segmentally-ended level, or a beam somewhat similar to the beam of the early pumping-engines, and in like manner vibrating upon a central axis. The beam projects over the front part of the base, and in a vertical line below it is a grooved plate, which forms the guide for the hammer-block to work in. The guide-plate is fixed to a frame, which projects from the front part of the fixed column or standard. The hammer-block is attached by a broad strap, or by a chain or suitable flexible connection, to an eye at the outer end of the overhead lever, and is raised by admitting the steam to the cylinder upon the upper side of the piston, which is thereby forced downwards, and carries with it the belt or chain, which is attached to the segmentally-ended lever connected to the hammer-block. The hammer descends by its own gravity, the force of the blow being regulated by the velocity with which the steam is allowed to escape from the cylinder, the emission of the steam being under the control of the attendant who has charge of the wheel, or other arrangement, by means of which the exhaust-valve is regulated. The eduction port is made of sufficient area to allow of the steam escaping suddenly from the cylinder when the whole force of the hammer-block is required.

FURNACES.—Mr. S. Hilton, Albion-street, Bethnal-green, provisionally specified an invention which consists in constructing and introducing a hollow chamber or deflector of peculiar construction into the furnace above the bars, and at a suitable distance between the front or dead plate and the ordinary bridge or back end of the furnace bars. The hollow chamber or deflector may be constructed of cast-iron, or any suitable heat-resisting material; it should be of a length or breadth suited to fill the width of the furnace, and of a height suited to extend or depend from the under side of the boiler or from the top of the internal flue to within a few inches above the furnace bars, or to a sufficient distance therefrom to permit of the live coke or cinders being thrust under it from the front to the back part of the furnace; and it should be of a shape suited to the form of furnace, so as to check the direct passage of the flames and products of combustion given off from the green coal or fuel on or contained upon the front part of the furnace bars, and deflect them, or cause them to pass over the incandescent fuel upon the back portion of the furnace bars. The thickness or distance between the back and front parts of the chamber or deflector should be proportioned to the size of the furnace and the quantity of fuel to be consumed.

FURNACES.—Mr. J. Aitken, of Islington, has invented an improved form of furnace for melting glass, iron, and other materials. He uses a furnace formed of such materials as are usual where a strong heat is required, with fire-bars along and across the furnace, with entrance outside. Where it is desirable to keep the fumes of the fire from the materials, let there be on each of the fire-bars a thin partition from the bottom or floor of the flue to the top of the furnace. The flue is to wind round the furnace chamber in the wall, and be connected with a fan or air-pump outside the furnace.

ARTIFICIAL STONE.—Messrs. Barteau, Guy, and Corroy, Paris, have provisionally specified some improvements in the production of artificial stone, which consist in its production from iron slag, bricks, rabble, and numerous other hard substances of little value, broken in small pieces and cemented together by a mixture composed of about 20 parts of hydraulic lime, 30 parts of Roman cement, 10 parts of iron oxide, of iron filings, and 40 parts of rough broken plaster, mixed dry, and then worked up with water to the consistency of mortar, then put into moulds of any desired form, together with the broken materials before named, in such manner that the latter shall be well surrounded, and become bound by the water or cement when dry. The mould being filled, the dressing or facing of the casting is effected by a wooden blade. In a few minutes the casting solidifies, and the imitation stone is produced, and is ready for use for all kinds of building purposes, millstones, &c. Instead of mixing the broken materials and the cement together in the moulds, artificial stone may be made from the cement alone, and this is better for use under water or under ground. A good artificial stone is also produced by mixing 10 parts unslacked hydraulic lime, sifted; 24 parts Roman cement, sifted; 966 parts plaster cement well mixed dry, and worked up as in the former case. Colours may be added according to the article required. This cement mixed with the crushed material produces an imitation stone very suitable for all uses above ground, and may be moulded to any form. To bind these stones in building, a liquid mortar of the same materials as the stones is used, and which becomes equally hard.

PROPULSION OF VESSELS.—We learn that an invention has been patented by which vessels are to be so propelled that the whole machinery is to be reduced to the screw and the boiler.

RAILWAY GUARD AND PASSENGER SIGNALS.—Col. Yolland, R.E., having arrived at the Tilbury Railway Station, by direction of the Board of Trade, to examine my Railway Passenger Signal: the directing tube having been tied on one side of a door-handle of a carriage, and a piece of flat iron placed 8 in. below the tube; when the train was in full speed between Tilbury and Grays, I took the signal from my coat pocket and allowed it to shoot down the tube by its own gravity, when it exploded on the iron plate with a loud report, but as the charge of powder in the signal was only 12 drachms, the colonel, who was in the rear end of the train, did not hear the report, while the other gentlemen who were in the front part of the train, did hear it. All that is now requisite is to insert a charge which will produce a report to be heard the whole length of the train. The requisite charge can be ascertained after a few more experiments; and, besides, if the different carriages were furnished with a signal each, the word or report could be passed onwards by every second or third carriage to the front. By using a wooden screw plug instead of a cork for confining the charge, the report will be much louder, the chamber bottom of the signal being fortified by a disc of sheet-iron. The steel pin may have a second percussion cap on its inner end; this will ensure the perfect ignition of the charge. Besides the sharp report of the signal, there is the vivid flash and a cloud of smoke to enlist the eye as well as the ear of the guard and driver of the engine. It is more convenient to have the signal ready capped with a safety cover over the percussion cap, which can be taken off in an instant when the signal is to be used. When intended for house defence, the lower end of the pin has a strand of slow match twisted round it; this will cause a pause of one second before the explosion takes place, so that it will have time to fall from the stirrup or iron plate to the ground, and there burst among the assailants; it can be used as an alarum signal against poachers, or those who would rob an orchard or garden. When resting on a transverse pin in the tube, a slight pressure against the cord attached to the pin will draw it out, when the signal shoots down and ignites, or explodes on the iron-plate.—J. NORTON: *Rosherville.*

PRACTICAL ENGINEERING—BRIDGES AND GIRDERS.—The concluding parts of Mr. Wm. Humber's "Treatise on Cast and Wrought-Iron Bridges and Girders, as applied to Railway Structures and to Buildings generally," have just been issued, and the complete work is certainly so excellently arranged that it is worthy of a place in the library of every engineer. The spirit and ability of the author in furnishing so thoroughly practical a work to the public cannot be too highly commended. He remarks that it is little more that 40 years since the death of Henry Cort, whose valuable improvements in the manufacture of iron opened so wide a field to the science of constructing edifices in metal; yet they already bid fair to equal in grandeur those monuments which have been the admiration of ages. Among these, iron bridges and viaducts undoubtedly occupy the first rank, and the manner in which Mr. Humber has brought the principal works forward certainly reflects very considerable credit upon his talent and judgment. The plates, 57 in number, are beautifully executed, comprising views and sections of the Chelsea Suspension, Vina d'el Mar, and Sursuttee bridges, the Crumlin viaduct, the railway bridges at Reading, Cardiff, &c., with many other celebrated bridges and engineering works. A diagram is also given, showing Mr. Barlow's method of determining the strain on a Warren girder. The introduction consists of some very sound remarks on the strength of cast-iron, and its applicability to building purposes; and the work, as a whole, presents an extremely valuable and comprehensive compilation, of great utility for study and reference to all engaged in engineering constructions.

BRITISH FLOATING COLLEGE.—The necessity for offering greater facilities for the acquirement of sound practical education has suggested to Capt. Robinson, Folkestone, the feasibility of establishing a college, in which the qualifications of a marine engineer and thorough seaman may be obtained by gentlemen intended for the commercial marine. The proposition has received the approbation of Admirals Lord Dundonald and Sir Charles Napier, Messrs. Baring Brothers and Co., Mr. W. S. Lindsay, &c. To carry out this design, a frigate-built ship, with auxiliary steam-power, will be provided as a floating college, to cruise about and occupy different stations. As to the success of the plan, we believe no doubt can be entertained, and the result of its operation will be that the merchant navy will be provided with a class of officers capable of acting in an emergency; for as their education will comprise navigation, marine engineering, gunnery, the higher mechanics, and collateral sciences, a ship carrying officers supplied from this college will never be found deficient, all being equally competent to discharge the various duties required.

AUSTRALIA.—The present Australian mail, per *Simla*, has again come forward without the Adelaide bags, consequently the mercantile community, and the public generally, who are now so largely interested in the colony of South Australia, are once more seriously inconvenienced; in fact, the difficulties resulting therefrom cannot be exaggerated. In addition to the golden freight of the *Simla*, she brought remittances for upwards of one million sterling; and it is calculated that, in addition to this large amount, at least half a million would have been transmitted from South Australia, if the *Simla* had been the bearer of a mail from that colony. It is quite evident from these imperfect arrangements, as well as frequent delays, that a thorough modification of the existing postal arrangements between this country and the Australian dependencies must be adopted. The Home Government must act independent of the local interests of each colony, and establish two postal communications per month, which can be easily effected by availing themselves of the route to the East Indies, now about to be established weekly, as far as Ceylon, and thence by a direct course to the nearest point, and most central geographical position of these colonies. The news from Adelaide *via* Melbourne is to Oct. 8. The TORRENS administration, after a very brief exercise of power, had succumbed to Mr. HANSON, who at that date was Premier as well as Attorney-General; Capt. HART, Treasurer; Mr. REYNOLDS, Commissioner of Public Works; Mr. F. DALTAN, Commissioner of Crown Lands. The Gawler Town Railway was opened with great pomp on Oct. 5. The Kapunda Railway was to be pushed forward with all practicable speed. The yield of the Burra Burra Mine continued at more than an average. Iron ore of superior quality had been discovered in large deposits.

RAILWAYS IN AUSTRALIA.—The annexed is a transcript of our Melbourne correspondent's letter, received by the *Simla*, and is a month later in date to that to which we gave insertion in our last Journal, which reached us by the *Emeu*, and *via* Marseilles. The present forms a complete *sequitur* to the former respecting the position of the railway question in Victoria, and shows that the issue of this important matter is still very doubtful. We likewise annex extracts from letters from Geelong, which allude to the same points as our Melbourne correspondent, but in a different sense; therefore it is mere justice to give them equal publicity:—

MELBOURNE, OCT. 15.—The *European*, with the London mail of August 17, and the *Simla* from Sydney, *en route* for Suez, with the homeward mail of this month, were telegraphed at the Heads within a few hours of each other yesterday; consequently, between the time of delivering the one mail and the dispatch of the other, which closes this evening, there is very little time to answer one's correspondence. You may, therefore, suppose that the good citizens of Melbourne are not idle this day in this matter, and it is significant of the fact that the busiest localities among the mercantile community are almost deserted.

In continuation of what I stated in my last communication regarding the railway bills before the Houses of Legislature, I have to inform you that the Railway Loan Bill passed the Assembly by a large majority, as well as the bill for constructing the two main lines simultaneously—from Melbourne to Sandhurst, *via* Castlemaine, and from Geelong to Ballarat. These bills were hurried through the Lower House with all the indecent haste of a compromise among its members; those representing the Castlemaine side gave in to the Geelong party, to prevent opposition, while the Government acquiesced, as long as some bill would pass to enable them to carry on the work. The independent minority were few indeed, as you will find by the newspapers which I send. These bills are now under the consideration of the council, which has appointed a select committee to examine witnesses thereon. What may be the result the most enlightened person in the community cannot determine. It would, therefore, be futile for me to venture any opinion on it; at the same time, I shall place the matter before you in such a light (in the event of the bill passing the Upper House) that London capitalists, and the members of the Stock Exchange, may be warned in time of the extravagant notions prevailing here as to their credit in the London money market, and gigantic expenditure on railway works. These bills empower the Government to borrow the sum of 8,000,000*l.* sterling, of which 7,000,000*l.* are to be raised in Britain. If this enormous sum of money, for even the rich colony of Victoria to ask for, was for the construction and initiation of a comprehensive railway system upon an economical scale, limiting the cost to something like the American average, so that the greatest extent of country would be thereby opened up, then it would be deserving of the support of English capitalists; but such is not the case. On the contrary, while there is no bounds to expenditure, there is a limit to the speed of trains to 20 miles per hour, which would involve the most costly constructed system. When the mover of the bills (Capt. Clarke) brought forward the probable estimate of what the line to Sandhurst and the Murray would cost, he put it down at 47,000*l.* per mile. Seeing that this staggered even the most unscrupulous members at voting away the public money; he subsequently amended his estimates, and averaged the cost of the two main lines proposed to 40,000*l.* per mile. Latterly even this has been modified, and the gallant captain will accommodate the colonial purse, by "probably" not requiring more than 30,000*l.* to 32,000*l.* per mile. This is the way this oracle on railways shows the accuracy of his calculations, and the measure of his political honesty; while it exhibits the most wanton legislation on the part of the Assembly, when they pass bills of such vital importance to the financial credit of the colony, and when they expect seven-eighths of the funds to come from the mother country. I was present in the House every night these bills were discussed, and it was disgraceful to see the trickery of rival route factions, with the pusillanimity of the Government, who would support the bills, *coute qui coute*, so long as there was a chance of their passing. The House sometimes was turned into a mere court of law, where the deputies from the rival localities stood below the bar cramming their legal representatives with information, which was unblushingly put forward as facts. There was all absence of national feeling on the question, and I have no hesitation in accusing the majority of the members with political malversation, and a desire to squeeze millions out of John Bull for the construction of costly works, in which, I am bound to say, not one of them invest 100*l.*

Altogether, the heterogenous and conflicting opinions, the selfish and factious Legislature, and the small practical results on existing lines, has rendered the railway question in Victoria most unsatisfactory and unprofitable. It has been aptly termed the "railway muddle," and every one seems heartily tired of it.

We now draw attention to the communications from Geelong, which are the opinions and views of gentlemen of known position and experience:—

GEELONG, OCT. 14.—Our railway hence to Melbourne is much abused by the Melbourne press, and is, it appears, a source of much gratification to some portion of their readers. Nevertheless, though slandered and abused, it is a cheap and excellent line, and will pay well when the Government has completed its portion of the junction to the city, six miles. Until this is finished we cannot do more than half work, as we are thereby prevented carrying goods, and lose one hour in time with passengers. It is expected that Government will have it finished in nine months.

GEELONG, OCT. 14.—I may inform you that the Colonial Legislature has passed a resolution, affirming the recommendation of a committee appointed by the House, that two trunk lines of railway (the one from Melbourne to the Murray, and the other direct from Geelong to Ballarat) shall be constructed by the Government at the public cost, and the works are expected to proceed without delay. There can be little doubt but that these main lines will fully occupy the attention of the Government, and that the construction of branch railways will be left to private enterprise.

THE MEXICAN AND SOUTH AMERICAN COMPANY.—On Tuesday a meeting was held at the Masters' Office, Chancery-lane, for the purpose of appointing an official manager, when Mr. Harding, of the firm of Harding, Pullein, and Co., was appointed in opposition to Mr. Goodchap, who had been nominated by the directors. On Wednesday a second meeting was held to appoint a person to represent the creditors under the estate; but after some discussion the meeting was adjourned. The following are some of the disclosures connected with the management of the undertaking. The petition of three of the directors—John D. Powles, of 17, Gracechurch-street, merchant; Henry Ranking, of 18, Angel-court, and William Henry Schneider, of 17, Gracechurch-street, merchants—verified on affidavit, states that the company was formed in 1835 for the carrying on of mineral operations and matters connected therewith in Mexico and South America, with a capital of 100,000*l.*, in 10,000 shares of 10*l.*, 5*l.* per share to be paid-up before April, 1836, and the remainder of the capital in 1*l.* per share when required by the directors. The first operations of the company consisted in furnishing supplies to mines and the working silver and quicksilver mines in Mexico, and in the course of these operations a considerable portion of the then existing capital of the company was lost, in consequence of the American invasion in Mexico. In 1848 the directors, with the sanction of the shareholders, engaged in the operation of copper smelting in Chili, and established works there, under the management of Mr. Robert Edward Allison. For these purposes a large additional capital was raised, to the full extent of the share capital of 10*l.* on 30,000 shares. The directors were Messrs. Powles, Ranking, Schneider, and Ward; auditors, E. Hurry and C. Freeman. In 1855 the petitioners allege that the business of the company had very considerably increased, its paid-up capital and credits amounting to 300,000*l.*, and the accounts rendered by Allison showed very considerable profits; but about the end of 1855 it was discovered that Allison had grossly mismanaged the company's business; that the accounts he had furnished from time to time were inaccurate and untrue; that he had, in fact, been carrying on the business for his own purposes; that he had involved the company in heavy liabilities and losses, and was thereupon dismissed. On investigation it was discovered that Allison had borrowed from Messrs. Huth, Gruning, and Co., the company's agents at Valparaiso, 140,000*l.* on account of the operations of the company, and in consideration of which Messrs. Huth had mortgaged all the works, ores, and property of the company; in addition to which a further loss was found to be sustained through the said Alison of 20,000*l.*, which he set forth as represented by the stock of unworked copper ore belonging to the company. By means of a call of 30,000*l.*, and a loan of 27,000*l.*, the debt due to Messrs. Huth was paid off to within a small balance. But on further investigation by Mr. Barnes, the new superintendent of the company at Chili, it was discovered that further heavy losses had been sustained by the company through Alison, in the shape of bad debts, misappropriation of monies, and depreciation of stock. All the available capital and resources of the company having been exhausted to meet the claims of Messrs. Huth, it now, on the discovery of further losses, become impracticable to carry on the works. During 1856, and up to very recently, every effort had been made by the directors to extricate the company from its embarrassments, but under the circumstances it was found impossible to carry on operations without a large additional capital could be raised to meet pressing liabilities and engagements. The present position of the company's affairs is as follows:—It has in Chili large works and establishments in good order, and which if worked with sufficient capital and economy would probably be remunerative. The liabilities of the company are heavy, consisting of bills to the amount of 80,000*l.*, and the property and plant at Chili are the sole assets.

COMBUSTION OF GAS.—Mr. Hely, Oxford-street, provisionally specified an invention to diminish the injurious and obnoxious effects produced in the burning of gas, especially as used for lighting purposes, by more effectually consuming and regulating the escape of the gaseous products, heated air, smoke, &c. This object is carried out by stopping the upper orifice of a common gas glass shade or chimney with a hollow lid of any sufficient heat-resisting material, completely closed at the top and sides, but ventilated at the bottom, where it projects at one or more places beyond the said orifice by apertures, which in their aggregate area should not be less than the area of the lower orifice of the said shade or chimney.

THE PATENT LAW, AS RECENTLY AMENDED.—No. IV.

BY F. W. CAMPIN.

THE PROVISIONAL SPECIFICATION.—This document is a very important one, introduced by the new Act, 1852. Although a document very like it, usually termed the "deposit paper," formed part of the practice of patent grants at the time of passing the Act, this, however, was a mere memorandum of the outline of the invention, deposited with the law officer upon his requisition alone, without the authority of any legal enactment, and its legal operation and effect was, in consequence, of very dubious and uncertain character; whilst the provisional specification is a document required on application for a patent, by the very terms of the new Act, in all cases where the application is not accompanied by a complete specification—that is, the specification in full.

The new Act, sect. 6, will be found to enact that the application shall be made by depositing at the Commissioners' Office the petition and declaration, and, if the complete specification does not accompany the same, a statement in writing, to be called the provisional specification, signed by, or on behalf of, the applicant for letters patent, describing the nature of the said invention, and what is meant by describing the nature of the invention will not be a matter of insuperable difficulty to those versed in patent practice, since, by long-established legal practice, the patentee is required to put in, within a certain time, a legal instrument known as "the specification," which must particularly describe and ascertain the nature of the said invention, and in what manner "the same is to be performed;" and, although the words "particularly" and "ascertain" are not to be found in the new enactment, as to the provisional specification, and consequently it would appear that the same exactitude will not be requisite in the provisional specification as in the complete specification, still the document must be so worded as to describe and define, with reasonable exactitude, the peculiar features or characteristics of the thing invented. In treating of this document, decisive and settled dicta cannot be given, since, as a recent writer (Mr. McGregor, on the "Language of Specifications of Patents") has justly observed, "this document has not been subject to such discussion in courts of law as may enable us to regulate, by the authority of judicial decisions, its terms, the arrangement and the amount of particularity required." What adds to the difficulty is, that it appears to be uncertain whether the law allows the entry of a valid disclaimer or memorandum of alteration with respect to a provisional specification, as sect. 39 of the Act of 1852 speaks of the allowance of these emendatory documents with respect to any specification *filed* under the Act, and the provisional specification is *not filed*, but merely left and recorded. However, by the rule 9 of the 2d set. it will be seen that clerical errors and omissions, *per incuriam*, will be allowed to be amended without formal disclaimer, &c. It will be found a course consistent with safety that the provisional specification should, in effect, be simply a statement, though not perhaps with all legal precision, of what is intended to be claimed by the patentee; and the claim contained in the after and final specification must tally with it. Beyond this, in order to comply with the rule 10 of the 2d set. of rules, intimation must be given of the means whereby it is proposed to carry the invention into effect. As, however, this is to satisfy the law officer, and is not required by the words of the Act of Parliament, it may fairly be presumed that if he once passes the document no objection in this particular could be taken afterwards, should the document be very loosely drawn up in that respect. It is certain that what is not compassed by the terms of the provisional specification cannot be afterwards set forth and claimed in the specification (final). It is, however, generally considered that things set forth in the provisional specification may, if necessary, be kept out of the specification (final), and not included in the patent right. Yet, here we have this difficulty—that if the patentee abandon any part of what he has distinctly enunciated as a part of his invention, it may be objected that he has not specified that which he represented to the Crown, through its officers, as his invention; that is, supposing the provisional specification states the invention to be a combination of three things, and two only are afterwards claimed and specified, then it might be said that the Crown has been deceived, the thing represented in the first instance not being the same as that afterwards attempted to be brought within the patent right. But if latitude be not allowed here, then will the patentee be compelled, in some instances, to specify, in the final specification, that which he has found out in the interval between the deposit of the provisional and of the final specification to be not sufficient to support a legal and valid patent, from want of novelty or utility, or both; and the six months allowed to a patentee to prepare and file his final specification, which is professedly allowed to enable him to do so in the most correct and proper manner, might as well be denied him. Moreover, it must be borne in mind that our law allows any person to patent anything as soon as that person can distinctly enunciate its principles, granting time and opportunity for furnishing the complete details, which being the case, it is evident that the first statement generally will set forth these principles as broadly as may be permitted, in order, if possible, to bring in everything that may, or can, be legally held under it; but some of the things, at first thought tenable, may afterwards be found not so, and then will have to be abandoned, in order to save the remainder. And should the first statement be too descriptive, it may be found afterwards that most important details cannot be included in the patent.

In short, the provisional specification should be considered as an amplified title, and a great deal that is said on that head will apply to the case; and, although both must satisfy the law officer, yet his being satisfied will not finally settle the legality thereof.

Patent Office, Strand, Dec., 1857.

SOUTH UNITED COPPER, TIN, AND LEAD MINE.—This valuable mine is situate in the parish of Perranarworthal, and county of Cornwall, and is held under a lease for 21 years, at 1-18th dues, from Messrs. Graham, Vivian, and others. The whole length on the line of the lodes is about 800 fms., and average breadth about 500 fms. It is parallel with the Great United and Wheal Clifford Mines, which have given considerable profits to the adventurers.

South United has an adit brought into it for about a mile in length, which is in good repair, and unwaters the mine at a depth of 35 fms.; three working shafts have been sunk to and communicated with it. The engine-shaft is sunk 17 fms. below the adit, the lode is about 3 ft. wide, composed of ore, gossan, mundic, and spar, of a very promising character, having been intersected and driven upon about 8 fms., from which several tons of rich copper ore have been raised. In South United there are three well-known lodes, which have been productive. It is also worthy of remark that this sett is traversed by a fine elvan course 4 fms. wide, running parallel with the lode. The lead lode is 14 in. wide, producing rich work for silver, close to the elvan; the tin lode is 3 ft. wide, which has produced a quantity of tin, east and west of the cross-course. This mine was worked about seven years since by a few poor men with a horse-whim, but for want of funds to erect a small steam-engine they were obliged to suspend the working of the mine, at a time when the prospects were never before so encouraging. From the geological position of the mine, with the fine stratum of killas, which is so congenial for tin and copper, and the discoveries already made, there is a certainty of immediate returns of copper, tin, and lead to be made. About £3000 worth of work has already been done in bringing in adit, sinking engine and other shafts for drawing, ventilation, &c. It is also worthy of remark that this sett is traversed by cross-courses and flookans, which have exerted such a powerful influence on the lodes in other mines, and which there is every reason to expect will also exert a similar influence on the lodes in this mine.

It is proposed to divide this mine into 1024 shares, of £1 each, to be paid as required, which will, it is expected, be an ample sum for the purchase and erection of a 24 in. steam-engine, which will be of sufficient power for working the mine, and all other requisite machinery and erections. Looking at the locality and its geological position, such an accommodation is very rarely to be met with.

Persons desirous to obtain shares, an early application is to be made to R. H. PIKE, Esq., purser, Camborne; or to Capt. J. W. HUNT, managing agent, Pennance Cottage, Redruth. A great part of the shares are taken up by respectable adventurers. 67

INVESTMENTS IN BRITISH MINES.

Full particulars of the most important Dividend and Progressive Mines will be found in the Fourth Edition of

BRITISH MINES CONSIDERED AS AN INVESTMENT,

Recently published, by J. H. MURCHISON, Esq., F.G.S., F.S.S.

Pp. 356; price 3s. 6d., by post 4s.

Mr. MURCHISON also publishes a QUARTERLY REVIEW OF BRITISH MINING, giving, at the same time, the Position and Prospects of the Mines at the end of each Quarter, the Dividends Paid, &c. The REVIEW for the Quarter ending the 30th of June, contains a Map of the Great Wheal Vor and Leiant Mining Districts, price 1s. Reliable information and advice will at any time be given by Mr. MURCHISON, either personally or by letter, at his offices, 117, Bishopsgate-street Within, London, where copies of the above publications can be obtained.

OPINIONS OF THE PRESS.

Mr. Murchison's new work on British Mines is attracting a great deal of attention, and is considered a very useful publication, and calculated to considerably improve the position of home mine investments.—Mining Journal.

The book will be found extremely valuable.—Observer.

A valuable little book.—Globe.

A valuable guide to investors.—Herapath

Mr. Murchison takes sound views upon the important subject of his book, and has placed, for a small sum, within the reach of all persons contemplating making investments in mining shares that information which should prevent rash speculation and unproductive outlay of capital in mines.—Morning Herald.

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As a guide for the investment of capital in mining operations is inestimable. One of the most valuable mining publications which has come under our notice, and contains more information than any other on the subject of which it treats.—Derby Telegraph.

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This work enables the capitalist to invest on sound principles; it is, in truth, an excellent guide.—Plymouth Journal.

All who have invested, or intend to invest, in mines, will do well to consult this very useful work.—Ipswich Express.

This is really a practical work for the capitalist.—Stockport Advertiser.

Persons desirous to invest their capital in mining speculations, will find this work a very useful guide.—Warwick Advertiser.

It is full of carefully compiled and reliable information relative to all the known mines in the United Kingdom.—Sheffield Free Press.

Those interested in mining affairs, or who are desirous of becoming speculators, should obtain and carefully peruse the work.—Monmouth Beacon.

Every person connected, or who thinks of connecting himself with mining speculations, should possess himself of this book.—North Wales Chronicle.

A very valuable book.—Cornwall Gazette. [Glasgow Examiner.

All who have invested, or intend to invest, in mines, should peruse this able work.

We believe a more useful publication, or one more to be depended on, cannot be found.—Plymouth Herald.

With such a work in print, it would be gross neglect in an investor not to consult it before laying out his capital.—Poole Herald.

Mr. Murchison will be a safe and trustworthy guide, so far as British mines are concerned.—Bath Express.

Is deserving the attention of every one who seeks profitable investment of his capital.—Brighton Examiner. 66

IN THE COUNTY OF LANCASTER.

WANTED, ONE or TWO PARTNERS, to TAKE a HALF-SHARE in an established and profitable COLLIERY, on a line of railway and canal, in direct communication with the shipping ports of the Mersey, and the manufacturing and Midland districts. The colliery is capable of great extension, and has a present vend of 100,000 tons of coal per annum. The mines, secured by lease for long terms of years, and at moderate royalties, will, in the aggregate, produce 5,000,000 tons of coal.

As the present proprietors intend retaining one-half share, the fullest information will be given to principals, or their solicitors, and the most rigid scrutiny allowed. Apply to Mr. ELIAS DORNING, mining engineer and colliery viewer, Manchester. 67

COLLIERY MANAGER.—A YOUNG MAN, who served his pupillage with an eminent viewer in the North of England, is desirous of meeting with an ENGAGEMENT as MANAGER of a COLLIERY or COLLIERIES. No objection to go abroad. Satisfactory testimonials as to character and ability can be given.—Letters addressed "Miner," Mr. Wm. Younger's, 9, Railway-terrace, Derby, will have prompt attention. 68

NICKEL ORES.—THE GAP MINING COMPANY OF LANCASTER, county Pennsylvania, are now ready to CONTRACT for the SALE of from 10,000 to 20,000 tons of NICKEL ORES, in lots to suit purchasers.—Address, F. S. HOECKLEY, secretary Gap Mining Company, 70, South Third-street, Philadelphia, Pennsylvania, U.S. 69

STAVELEY COLLIERIES, IN THE COUNTY OF DERBY.—A PERSON fully qualified to TAKE the DUTIES of RESIDENT VIEWER is WANTED at these collieries. He must possess a thorough practical knowledge of mining engineering, and of colliery machinery; and his whole time and attention must be exclusively directed to these works. Unexceptionable testimonials as to character and abilities will be required.—Application may be made to Mr. HEATON, Staveley Works, near Chesterfield; or to Messrs. WOODHOUSE and JEFFCOCK, civil and mining engineers, Midland-road, Derby.—Nov. 20, 1857. 70

TO MINE AGENTS AND SURVEYORS.—Some purchasers of the PAPER PROTRACTORS (one of which is sent on receipt of 13 postage stamps) having stated their inability to affix them satisfactorily to the drawing paper, directions for so doing will in future be sent to every purchaser. And whereas some persons have expressed their preference for PROTRACTORS PRINTED ON THE DRAWING PAPER, ten sheets double elephant drawing paper, with the protractor printed on each sheet, will be sent free to any part of England, on receipt of a post-office order in favour of BRENTON STMONS, surveyor and lithographer, Truro. 71

TO BELL FOUNDERS, CLOCK MAKERS, AND OTHERS.—TENDERS are REQUIRED, on or before the 30th December inst., for a PEAL of EIGHT BELLS (tenor from 16 to 20 cwts.), and a CLOCK (including fixing), for the tower of St. Elvan's Church, Aberdare. The lowest tender will not necessarily be accepted.—For particulars, apply to the Secretary of the Committee, Mr. JAMES GAWN, auctioneer, Aberdare. 72

PUMPING AND WINDING ENGINES.—FOR SALE, an excellent 50 in. PUMPING ENGINE, 10 ft. stroke, two boilers 10 tons each, in perfect condition, nearly new, with fire-proof house. A 24 in. WHIM HORIZONTAL ENGINE, with 10 tons boiler, nearly new, in excellent condition, and drawing machine attached.

As these engines are very superior in make and condition, parties requiring engines will do well to examine them.—Apply to Mr. C. WESCOMB, 21, Southernhay, Exeter. 73

STEAM PUMPS, FOR LAND AND MARINE PURPOSES, SINGLE or DOUBLE ACTING; sizes from 2½ to 12 in. diameter, and from 4 to 18 in. stroke; by JOHN CAMERON. Used for feeding boilers, raising water (for reservoirs, tanks, irrigation, &c.), turning power, or as a steam fire engine. Works, Egerton-street, Hulme, Manchester. 74

BRIDGE RAILS.—600 tons BRIDGE RAILS, 56 lbs. per yard, TO BE SOLD, or LET ON HIRE.—Apply to Messrs. FULLER and HORSEY, Billiter-street, E.C. 75

ANY QUANTITY OF IRON ORE FOR SALE, from PRAWLE MINE, yielding, by assay, 50 per cent. of pure iron.—For samples, &c., apply to the secretary, Mr F. NEVILL, 4, Westwell-street, Plymouth. 76

TO BE LET, EXTENSIVE ROYALTIES OF COAL, amounting to 1000 acres, to which more may be added, if requested, in the township of Fishburn, county Durham, the seams of which have been bored to. They are known to be applicable to steam-boat, manufacturing, and coking purposes.—For particulars, plans, &c., apply to Mr. THOS. E. FORSTER, 7, Ellison-place, Newcastle; or to Mr. E. F. BOYD, Urpeth, Chester-le-street.—Oct. 8, 1857. 77

WANTED TO PURCHASE, FOR CASH, ONE SHARE in SOUTH TOLGUS MINE, near Redruth; ONE SHARE in WEST DAMSEL, in Gwennap; and ONE SHARE in GREAT WHEAL BUSY.—Holders having such to dispose of will please give their lowest price, addressed to "R. B.," *Mining Journal* office, 26, Fleet-street, London, who shall hear per return of post from Cornwall. 78

TREDINNICK'S LIST OF PRICES OF BRITISH MINES, RAILWAYS, BANKS, &c., published weekly, and forwarded by post at a charge of £1 1s. annually. Fluctuations in market value faithfully recorded, with Comments on the progress of Dividend and sound Progressive Mines.

Gresham House, Old Broad-street, London. 79

UNITED STATES OF AMERICA.—DUPEE, PERKINS, and SAYLES, BOSTON, MASSACHUSETTS, BROKERS for the PURCHASE and SALE of STATE, CITY, and RAILROAD SECURITIES, MANUFACTURING and BANK SHARES, give particular attention to the MINING COMPANIES OF LAKE SUPERIOR, and furnish reliable information concerning them.

[DUPEE, PERKINS, and SAYLES refer to the Editor of the *Mining Journal*.] 80

THE GREAT BARRIER LAND, HARBOUR, AND MINING COMPANY (LIMITED).—In 10,000 shares, of £5 each.

Deposit, 10s. per share at the time of application, and 20s. per share upon allotment.

Prospectuses can be obtained at the office, No. 117, Bishopsgate-street Within, London. J. H. MURCHISON, Sec. 81

THISTLEMOOR CONSOLS MINE.—At a GENERAL MEETING of adventurers in Thistlemoor Consols Mine, held at the Globe Hotel, Plymouth, the 30th day of November, 1857, pursuant to notice,

Present,—THOMAS NICHOLLS, Esq., in the chair,

Messrs. Jas. Richards, Thos. Richards, Jas. Barratt, Wm. Rowe, and John Barratt.

The accounts to the end of October, 1857, were produced, examined, and found correct, showing a balance due from the adventurers of £137 4s. 10d.

Resolved,—That the same be allowed and passed.

Resolved,—That a call of 1s. 6d. per 1-6000th share be, and is hereby, made, payable forthwith at the Devon and Cornwall Bank, Liskeard, to the credit of the company, to discharge the said balance, for the purchase of machinery, and for the further costs of the mine.

Resolved,—That the reports of Capts. Thos. Richards and Jas. Barratt be adopted, and that a copy of the same, together with the resolutions of this meeting, be printed and circulated among the shareholders, and inserted in the *Mining Journal* and the *Plymouth Journal*.

Resolved,—That Capt. Thomas Richards be appointed managing agent, at a salary of £4 4s. per month. That Capt. James Barratt be appointed the resident agent (and purser pro tem.), at a salary of £7 7s. per month.

Resolved,—That the agreements relating to the water-course be transferred by the lessees, Capts. Thomas Richards and J. Barratt, to the company forthwith.

Resolved,—That the agents be authorised to purchase all the machinery and materials that may be required for a vigorous prosecution of the mine.

Resolved,—That the next general meeting be held on the mine, and that due notice of the same be given by the purser.

Resolved,—That the thanks of this meeting be given to the Chairman.

Signed, THOMAS NICHOLLS, Chairman.

REPORT.

Thistlemoor Consols Mine, near Bodmin, Nov. 28, 1857.—We beg leave to lay before you a statement of work done, and now doing, since the commencement of operations. For about the first month we opened on the back of the lode by shallow shafts and costeaning, and for about 40 fms. in length we found very extraordinary appearances; the lode, although at such shallow depth, produced some very rich lead ore, specimens of which will be presented at the meeting; but being in low ground it could not be prosecuted deeper than about 15 ft. In the last small shaft sunk, and at the deepest point reached, there is a very splendid lode, full 2½ ft. wide, carrying a very rich leader of ore, with good work interspersed throughout the gossan and flookan.

It will be seen, on reference to the plan of the sett, that about 200 fms. northward from the above working a small shaft has been sunk about 8 fms. deep, and a lode laid open at the bottom of it for about 3 fms. in length, that will average full 2½ ft. wide, containing magnificent gossan, prian, and quartz. Here, also, judging from the general fine character of the lode and the ground around it, we have no doubt whatever of finding it very productive at about or a little below the same depth, as in the southern low ground before alluded to.

The wonderful prospects of the lode developed by these shallow explorations, and the situation being in very low ground, it became quite evident that machinery must immediately be had recourse to, and there being in the vicinity a good stream of water, and a fall sufficient for a large wheel, we have, with the advice of the principal shareholders, secured on reasonable terms the use of the water (the agreements for which will be laid before you), and during the last two months have made a good leat, from the point where we took up the water, for a distance of near 400 fms.; and, agreeably with the conditions of the agreement, good and substantial bridges and fences have been made in every field—there is now only about 70 fms. more of leat to make. The wheel-pit, suitable for a 40 ft. diameter wheel, is nearly excavated, and the lobby is completed up to it to take the water from it. An agreement has been made for stone for building the pit, and a large quantity is already delivered alongside of it, so that we shall soon be in a position to commence building.

In addition to the foregoing work, suitable buildings are in the way of erecting for a smiths' shop, store house, account house, carpenters' shop, &c., the walls of which will be completed in a few days. A good road has been made up to the mine, a lobby and adit have been brought up to it, and a new engine-shaft, 10 ft. by 6, within timber, has been begun and made good for about 15 ft. deep through the alluvial deposit, which required close and strong timbering, the bottom of which has just reached the shelf where the lode is beginning to form itself, and, although not seen more than 2 ft. in the shelf, lead is beginning to make its appearance, together with beautiful gossan and prian.

Acting on the advice of the principal shareholders, we have ordered the deeds to be drawn, the drafts of which will also be laid before you.

In conclusion, we may remark that the prospects of almost immediately having a good mine, together with the local advantages, are rarely to be, if ever, equalled, and the outlay required, in consequence of available water-power, will be exceedingly small. THOMAS RICHARDS, JAMES BARRATT.

Since the meeting we have succeeded in purchasing a splendid water-wheel, 40 ft. diameter, 5 ft. breast, together with a line of flat rods, shears, and a 25 fms. lift of pumps, complete, good as new, and sundry other necessary materials, the whole of which will not cost us more than about £200, which in the first place must have cost at least £700. THOMAS RICHARDS, JAMES BARRATT. 82

In the Court of Chancery, Ireland.

In the Matter of the JOINT-STOCK COMPANIES WINDING-UP ACTS, 18 and 1849, and of the MIZEN HEAD COPPER MINING COMPANY.

PURSUANT to my ORDER made in this Matter, bearing date 15th day of May, 1857, I, the MASTER charged with the winding-up of company, will, on Wednesday, the 3d day of February, 1858, at the hour of o'clock in the afternoon, at my Chambers, Inns' Quay, in the City of Dublin, UP AND SELL to the highest and fairest bidder, ALL that and those the MI called the MIZEN HEAD COPPER MINES, situate in the barony of West Carb and county of Cork, in the petition in this matter mentioned.

Dated this 21st day of November, 1857.

WILLIAM BROOKE

DESCRIPTIVE PARTICULARS.—The Mizen Head Copper Mines are held under bearing date the 22d day of February, 1853, for a term of 31 years, from the 1 November, 1852, subject to the royalty of 1-18th of the clear profits thereof, and situate in the extreme south-west of Ireland, about sixteen miles from the town Skull, and seven from the safe harbour of Crookhaven. Considerable sums of m have been expended in sinking shafts, machinery, &c.; but the mines, which, the report of competent judges, are considered very eligible, have been but parti and inefficiently worked.

For further particulars, rentals, and conditions of sale, apply to AQUILLA SM Esq., the official manager, 121, Lower Baggot-street; EDWARD JOHN BOLTON, solicitor, having carriage of sale, 67, Stephen's-green South; MURDOCK GREEN Co., solicitors for contributories, 52, Lower Sackville-street; MICHAEL LARKIN, citor for petitioner, 1, Merchants' Quay; TIMOTHY M'CARTHY DOWNING, solici Skibbereen, and 7, Inns' Quay; and to MICHAEL JOHN GROGHEGAN, solicitor, Lincoln's Inn-fields, London.

IN CHANCERY.

TO CAPITALISTS, COAL PROPRIETORS, AND OTHERS.

IMPORTANT SALE OF VALUABLE LEASES OF COAL MINES, KNOWN THE PENDLETON COLLIERY.

Situate within 2½ miles of the Manchester Royal Exchange, county of Lancast

MR. WILLIAM GRUNDY WILL SELL, at the Albion Hot Manchester, on Tuesday, the 15th day of December, 1857, at Four o'clock the afternoon, pursuant to a Decree of the High Court of Chancery, made in Cause of KERRICH *v.* FITZGERALD AND OTHERS, dated the 5th day of August, 18 with the approbation of the Hon. Sir GEORGE ROSE, one of the Masters of the Court, in One Lot.

The property to be offered comprises the IMPROVED RENTS and ROYALTI of and in the several MINES, known as the FITZGERALD, the DUCHY, and BLOMELEY MINES.

The FITZGERALD MINES consist of all the mines and veins of coal under 6 1a. 32p. of land of the statute measure, and are held for the remainder of a term 61 years, commencing on the 3d day of January, 1840, at royalties varying from £ to £70 per statute acre.

The DUCHY MINES consist of four mines, or seams of coal, under 56a. 1r. 1 of land of the statute measure, held for the remainder of a term of 31 years, co mencing on the 25th day of March, 1852, at royalties varying from £15 to £70 p statute acre.

The BLOMELEY MINES consist of the same four seams, or veins of coal, und 9a. 3r. 32p. of land of the Cheshire large measure, and are held for the remainder a term of 50 years, commencing on the 29th day of September, 1851, at royalties rying from £25 to £30 per Cheshire acre.

The lessee has rights of way over the Fitzgerald estate into Broughton, for the pe sale of coal, free of toll.

The MINES forming the said colliery will be sold subject to an under-lease Messrs. Andrew Knowles and Sons, at a minimum rent of £1436, and at improv royalties, varying from £70 to £120 per statute acre, and subject to the payment all surface rents. The under-lessees also pay a way-leave rent of 4½d. per ton per Cheshire acre on all coal brought through these collieries from adjoining mines.

The capabilities and excellent working condition of the Pendleton Colliery; exemption from toll into Broughton and Manchester, and the close approximate thereto, the colliery being only 2½ miles from the Manchester Royal Exchan under this one of the most desirable properties of this description in the county.

Plans and full descriptive particulars are being prepared, and may be had, gra in London, of Messrs. WHITE and BORRETT, solicitors, 10, Whitehall-place; a Messrs. COOPER and HODGSON, solicitors, 3, Verulam-buildings, Gray's Inn; and Manchester, of HUGH HUDSON, Esq., Broughton, near Manchester; at the princ hotels in Manchester and Liverpool; or from Mr. GRUNDY, the auctioneer, 86, K street, Manchester.

SOUTH WALES.—Mr. ARTHUR O. DAVIES, of Dowlais, authorised to TREAT for the SALE of TWO VERY VALUABLE GOO COLLIERIES in South Wales.

Also, TO LET, an EXTENSIVE TRACT of STEAM COAL, on a long lease, moderate royalty, with a railway running through the property.

For terms, apply as above.

WEST SORTRIDGE CONSOLS.—FOR SALE, BY PRIVAT CONTRACT, the above MINE, in the parish of Whitchurch, Devon, ther with ALL the MACHINERY and MATERIALS thereon, comprising a WATE WHEEL, 15 ft. in diameter and 7 ft. breast; first-class 8-headed stamps; balance travelling-bob; shaft-bob; line of flat-rods (about 35 fms.) of ¾ in. crown iron, w pulleys, complete; piece of 6 in. main rod; 200 fms. tram iron, 2½ by ¾; 35 fathom whim-rope; 14 fms. ¾ chain; 2 whim-kibbles; 7 spare stamps' lifters; wood floor &c.; about 7 or 8 cwts. of cast-steel borers; about 2½ cwts. of powder; and sund other articles, for which see catalogues.

The above mine adjoins the celebrated Sortridge Consols Mine on the west, the di covery just made in the 40 west at which is looked upon as affecting most favourab the West Sortridge sett, and adjoins Wheal Franco, which has also made good re turns, and is in the immediate neighbourhood of North Wheal Robert, now maki large returns.

The present adventurers have expended a considerable sum in laying open the lode and several hundred pounds worth of tin ore have been sold, but number of t shareholders not paying their calls obliges the company to offer this promising mi with the machine, &c. Many of the present shareholders have been desirous of join ing a new company, as they believe that with a small additional expenditure portant discoveries will be made.

Every information, orders to inspect, and catalogues, may be obtained of J. H. Mu CHISON, Esq., 117, Bishopsgate-street-within, London.

VALUABLE ANTHRACITE COAL.—TO BE LET, under t farms called Lladrog Mawr, Lladrog Fach, Ty Canol, Branwithaw, Cendre and Wern, the following valuable SEAMS OF COAL, or some of them may be work under these properties:—The Wain Fynnon, the Drap, Graigog, Green, Big Sea Yard, and Two Feet Seam, varying from 2 to 9 ft. thick. The situation of these farm with reference to the Gwendraeth Canal and the South Wales Railway, afford an communication to the ports of Penbrey and Kidwelly, as well as to the interior England.—For further particulars, apply to Messrs. WHITE, BRODRIBB, and WH solicitors, 12, Great Marlborough-street, W., London; Mr. GEORGE GOODE, Carm then; Mr. W. P. STRUVE, C.E., Swansea.

MARINE SMOKE PREVENTION
BY MR. LEE STEVENS.
No charge for patent right unless successful.
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BY MR. LEE STEVENS.
No charge for patent right unless successful.
1, FISH STREET HILL, CITY, LONDON, E.C.

TO RAILWAY COMPANIES AND CONTRACTORS, AND MANUFACTURE OF AND DEALERS IN RAILWAY PLANT AND MATERIALS.

SECOND-HAND RAILWAY PLANT WANTED FOR NARROW GAUGE RAILWAY.—WANTED TO PURCHASE, by a Railway Company (the first portion of whose line is about to be opened), SECOND HAND RAILWAY PLANT, in good condition, and fit for immediate use, deliver from the Railway Station at Shrewsbury or Oswestry. All companies and pers desirous of disposing of such articles, and willing to deliver the same at Shrewsb or Oswestry, are requested to state full particulars and lowest prices, and, where p ticable, to forward drawings of the articles not later than the 19th December inst. The principal articles required are—1st, 2d, and 3d Class Carriages, Luggage V Covered Goods Carriage, Coal Trucks, Lime Trucks, Ballast Trucks, Stock Truck Cranes, Weigh-Bridges, Points and Crossings for Sidings, Turn-Tables, Water Tan Temporary Station Buildings of iron or wood, with the usual fittings belong thereto, Engine Sheds, Goods Sheds, and Warehouses of iron or wood, Signal Po Lifting Jacks, Lamps, &c.

Tenders to be forwarded to RICE HOPKINS, Esq., C.E., No. 8, Parliament-st Westminster, S.W.—Dec. 2, 1857.

TO IRONMASTERS, ENGINEERS, AND FOUNDERS. The HARRINGTON IRON COMPANY are now PREPARED to SUPP MELTING and FORGE PIG-IRON, made from the rich HEMATITE IRON OR of CUMBERLAND.—Address, HARRINGTON IRON COMPANY, Cumberland.

ASSAY OFFICE AND LABORATORY, DUNNING'S ALLEY, BISHOPSGATE STREET WITHOUT, LONDON. Conducted by JOHN MITCHELL, F.C.S., Author of "Manual of Practical Assaying," Metallurgical Papers, &c.

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THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Prices.	Present.	Dividends per Share.	Last Paid.
5120	Alfred Consols (cop.), Phillack* [S.E.]	2l. 11s. 10d.	£14	13⅛ 14	£18 1 0	£0 4 0—Dec. 7, 1857.
1624	Balleswidden (tin), St. Just		11¼		12 5 0	0 5 0—Jan. 1, 1854.
4000	Bedford United (copper), Tavistock+	2l. 6s. 8d.	4	6¾ 7¼	9 11 6	0 6 0—Aug. 27, 1857.
240	Boscean (tin), St. Just		20	70 80	21 0 0	3 0 0—Sept. 4, 1857.
800	Botallack (tin, copper), St. Just*		20¾			
1200	Brightside and Frogatt Grove, Derbyshire.		91¼	180 190	415 5 0	5 0 0—Oct. 27, 1857.
160	Brynford Hall (lead), Flint+	3	4	3¾ 4	3 0 0	3 0 0—Apr. 30, 1856.
1000	Bryntail, Llanidloes, Montgomeryshire	20	40	40	13 0 0	5 0 0—July 31, 1856.
420	Budnick Consols (tin), Perran		7¾	2 1 1½	0 5 0	0 5 0—July 1, 1856.
6000	Bwich (silver-lead), Cardiganshire	3l. 1s. 6d.	8		0 10 0	0 10 0—Mar. 26, 1857.
1000	Carn Brea (copper, tin), Illogan		1	1	0 2 6	0 2 6—July 30, 1856.
3048	Carnyorth (tin), St. Just		15	45 50	237 10 0	2 0 0—Nov. 11, 1857.
200	Cefn Cwm Brwyno (lead), Cardiganshire		4½	5¾ 5¾ 6¼	0 15 0	0 3 0—June 16, 1856.
2000	Collacombe (copper)		33	55 43	3 0 0	3 0 0—Oct. 4, 1855.
256	Condarrow (copper, tin), Camborne [S.E.]	5	16	14 15	3 5 0	0 8 0—Dec. 2, 1857.
1035	Craddock Moor (copper), St. Cleer	20	110	110 115	85 100	2 0 0—June 10, 1857.
30000	Craven Moor, Limited (lead), Yorkshire		⅛		0 12 0	0 7 0—Nov. 6, 1857.
128	Cwmystwith (lead), Cardiganshire+		60	¼ 150	0 0 9	0 0 9—Feb. 28, 1856.
280	Derwent Mines (silver-lead), Durham		300	150 150	100 0 0	5 0 0—Oct. 22, 1857.
1024	Devon Great Consols (cop)., Tavist.* [S.E.]	1	445	430 xd	122 0 0	10 0 0—June 25, 1857.
672	Ding Dong (tin), Gulval+	32¾	20	175 20	595 0 0	8 0 0—Nov. 20, 1857.
179	Dolcoath (copper, tin), Camborne*	257¾	270	250 275	16 7 6	1 10 0—Mar. 2, 1857.
12800	Drake Walls (tin, copper), Calstock	1l. 19s.	1½	1½	943 0 0	8 0 0—Oct. 12, 1857.
300	East Daren (lead), Cardiganshire+		32	100 100	0 13 6	0 2 0—Sept. 11, 1857.
3048	East Falmouth (lead)		2	3 4½ 4¾	36 0 0	3 0 0—Dec. 10, 1857.
128	East Pool (tin, copper), Pool, Illogan*	24¼	340	150 200	0 5 0	0 2 6—Oct. 19, 1857.
1024	East Wheal Margaret (tin, copper)		7¾	3½ 2	202 10 0	2 10 0—Oct. 22, 1857.
5700	Exmouth (silver-lead)	4l. 14s.	8		0 5 0	0 5 0—Jan. 11, 1854.
1400	Eyam Mining Company (lead), Derbyshire	5	60	58 60	3 5 0	0 4 0—Oct. 23, 1857.
4940	Fowey Consols (copper), Tywardreath	4	7	5	15 13 4	1 0 0—Oct. 8, 1857.
4448	General Mining Co. for Ireland (cop., lead)	3¼	1	1⅜	41 4 3	0 6 0—Feb. 17, 1857.
2000	Goginan (silver-lead), Cardiganshire	11¼	—	2½	1 0 8	0 3 3—June 5, 1853.
1024	Gonamena (copper), St. Cleer	13¾	15	10 12	22 0 0	0 5 0—Sept. 5, 1850.
243	Grambler and St. Aubyn (copper)	109¾	82½	82½	0 7 6	0 7 6—Dec. 21, 1852.
6000	Great South Tolgus [S.E.]	2½	14¾	13⅛ 14⅛	6 0 0	0 2 0—Mar. 25, 1857.
25656	Great Wheal Vor (tin, cop.), Helston [S.E.]	7¾	1½	1 1¼	1 4 6	0 8 0—Oct. 26, 1857.
119	Great Work (tin), Germoe		100	140	0 5 0	0 5 0—Oct. 22, 1855.
1024	Herodsfoot (lead), near Liskeard		8½	7¼ 7 7½	231 10 0	7 10 0—Feb. 27, 1857.
6000	Hingston Down Consols (copper), Calstock		3¾	4½ 4 4¼	3 2 6	0 10 0—Sept. 23, 1857.
2000	Holyford (copper), near Tipperary		11	3¾	2 16 0	0 2 6—Nov. 29, 1856.
2560	Isle of Man (Limited)*		25	42	4 2 6	0 5 0—Jan. 28, 1857.
76	Jamaica (lead), Mold, Flintshire	3l. 13s. 6d.	—		54 17 3	1 0 0—Sept. 3, 1857.
20	Laxey Mining Company, Isle of Man		100	1000 1000	380 0 0	5 0 0—Mar. 10, 1851.
160	Levant (copper, tin), St. Just		2¼	90 80 90	1420 0 0	50 0 0—June 30, 1857.
5000	Lewis Mines (tin, copper), St. Erth	5l. 15s. 11¼d.	—	¼ 1	1062 0 0	4 0 0—May 12, 1857.
400	Lisburne (lead), Cardiganshire, Wales		18¾	120 120	0 10 0	0 10 0—Dec. 20, 1855.
6000	Marke Valley (copper), Caradon	4l. 10s. 6d.	2½	2	304 10 0	3 0 0—Dec. 3, 1857.
3000	Mendip Hills (lead), Somerset		3¾	1⅞ 1¾	0 5 6	0 3 0—Sept. 7, 1855.
5000	Merllyn (lead), Flint		3¾	⅛ ⅛	1 7 6	0 5 0—May 29, 1857.
1800	Minera Mines (Limited)		25	90 125	1 11 0	0 2 6—June 22, 1853.
20000	Mining Co. of Ireland (copper, lead, coal)		7	15 15	24 2 6	3 2 6—Nov. 11, 1857.
5000	Nanteos and Penrhiw, Limited (£2½ shares)		1⅞	1½ 1⅜	12 15 6	0 10 6—July 2, 1857.
6400	Nether Hearth, Westmoreland		2s.	1⅛ 1 1¼	0 1 6	0 1 6—Apr. 30, 1855.
470	Newtonards Mining Company, Co. Down+		50	35	0 2 0	0 1 0—May 21, 1856.
300	North Pool (copper, tin), Pool	36l. 10s. 3d.	70	60 70	48 0 0	1 0 0—Oct. 17, 1856.
140	North Roskear (copper), Camborne	50l. 7s. 6d.	130	125 135	324 0 0	2 0 0—Dec. 26, 1854.
6000	North Wheal Basset (cop., tin), Illo.* [S.E.]	nil.	12½	12 12¼	750 0 0	4 0 0—Sept. 26, 1853.
6400	Par Consols (copper), St. Blazey [S.E.]		1½	20 19 19⅛	13 19 0	0 6 0—Oct. 28, 1857.
500	Peak United (lead), North Derbyshire		7¾	2½ 2 2½	31 4 0	1 10 0—Oct. 27, 1857.
200	Phœnix (copper, tin), Linkinghorne		100	370 370	4 10 0	0 10 0—Apr. 12, 1856.
1000	Polberro (tin), St. Agnes (Preferential)		15	—	244 10 0	20 0 0—Nov. —, 1857.
1772	Ditto (Old and ditto)		—		11 11 9	1 0 3—July 11, 1857.
560	Providence Mines (tin), Uny Lelant+	20l. 13s. 2d.	70	62½ 75	0 10 0	0 10 0—Dec. 1, 1857.
2560	Rhoswydol and Bacheidion (lead)		11¼	12	70 4 6	4 0 0—Nov. 18, 1857.
512	Rosewarne United (copper, tin), Gwinear*		12	22½ 20	0 13 0	0 3 0—Oct. 21, 1857.
12000	Sortridge Consols (cop.), Whitchurch [S.E.]		6s.	2 1¾	33 10 0	1 10 0—June 8, 1857.
256	South Caradon (copper), St. Cleer* [S.E.]		2¼	340 340	0 10 0	0 2 6—July 27, 1857.
128	South Crinnis (copper), St. Austell		19	285 285	492 0 0	10 0 0—Nov. 24, 1857.
256	South Tolgus (copper), Redruth, Cornwall		15	100 90	60 0 0	20 0 0—June 18, 1855.
496	South Wheal Frances, Illogan* [S.E.]	18l. 18s. 9d.	230	220 230	74 0 0	3 0 0—July 28, 1857.
1024	Spearne Consols (tin), St. Just, Cornwall	3l. 6s.	2	1 1½	275 5 0	8 0 0—Nov. 2, 1857.
280	Spearne Moor (copper), St. Just+	23l. 7s. 8d.	15		8 8 6	0 2 6—Dec. 10, 1853.
970	St. Aubyn and Grylls (cop., tin), Breage	6l. 8s. 4d.	5	4 4½	4 5 0	0 10 0—June 13, 1856.
20000	St. Day United (tin and copper)		2	1	0 17 6	0 7 6—April 1, 1852.
94	St. Ives Consols (tin), St. Ives		160	⅞ 1 150 160 xd	0 2 6	0 1 0—Sept. 14, 1857.
9600	Tamar Consols (sil.-lead), Beeralston [S.E.]		4½	1	915 0 0	5 0 0—Nov. 19, 1857.
6000	Tincroft (copper, tin), Pool, Illogan [S.E.]		9	¾ 1	4 13 6	0 2 6—Feb. 7, 1856.
572	Trelyon Consols (tin), St. Ives		11¼	4 3½ 4	8 3 6	0 5 0—April 13, 1857.
96	Tresavean (copper), Gwennap, Cornwall		42½	13 8 10	1 15 0	1 0 0—Feb. 21, 1854.
120	Trethellan (copper), Gwennap, Cornwall		15½	65 55 65	4677 15 0	5 0 0—June 4, 1855.
4000	Tretoll (copper, tin), Bodmin	1l. 3s. 6d.	20	15	403 13 6	2 10 0—Apr. 29, 1851.
4096	Trewetha (silver-lead), Menheniot, Cornwall		2¼	3 1 1½	0 5 0	0 5 0—July 8, 1856.
100	Trumpet Consols (tin), near Helston		1	¾ 1	1 12 0	0 3 0—April 2, 1857.
400	United Mines (copper), Gwennap [S.E.]		95	50 20	55 0 0	5 0 0—Dec. 20, 1854.
20000	Vale of Towy (lead), Carmarthen [S.E.]		40	125 115 120	61 5 0	2 0 0—Feb. 12, 1856.
512	Wendron Consols (tin), Wendron	23l. 7s. 5d.	⅜	¾ 1	0 3 9	0 0 6—June 12, 1857.
6000	West Basset (copper), Illogan* [S.E.]		40	40 34½ 35½	2 0 0	1 0 0—Sept. 22, 1857.
256	West Caradon (copper), Liskeard [S.E.]		1½	24 21 23	12 10 0	0 10 0—Nov. 25, 1857.
256	West Damsel (copper), Gwennap		20	120 110	285 5 0	2 0 0—Sept. 23, 1857.
1024	West Providence (tin), St. Erth+	£10 7	80	75 80	22 0 0	2 0 0—July 20, 1857.
400	West Wheal Seton (copper), Camborne*	1l. 11s. 7d.	—	2	33 1 9	0 10 0—April 8, 1857.
228	Wheal Arthur (copper), Calstock		38¼	300 300 310	94 10 0	9 0 0—Oct. 14, 1857.
240	Wheal Bal (tin), St. Just		8	6	6 10 0	0 10 0—Oct. 25, 1855.
512	Wheal Basset (copper), Illogan* [S.E.]		6	5	2 0 0	0 10 0—Nov. 14, 1855.
256	Wheal Buller (copper), Redruth* [S.E.]		5¼	150 140 150	468 10 0	5 0 0—Oct. 6, 1857.
250	Wheal Clifford (copper), Gwennap		5	310 220 310	850 0 0	7 10 0—Nov. 17, 1857.
000	Wheal Fortescue, Bodmin		—	450 230 250	42 0 0	3 0 0—Oct. 26, 1857.
128	Wheal Friendship (copper), Devon		nil.	⅛	0 2 4	0 1 6—Jan. 14, 1856.
024	Wheal Grylls (copper, tin), Breage		50	80	2375 10 0	8 0 0—May 10, 1854.
512	Wheal Jane (silver-lead), Kea		4s.	½	0 2 0	0 2 0—Feb. 28, 1857.
5000	Wheal Kitty (tin), St. Agnes		3¼	¼	8 10 0	1 10 0—Oct. 16, 1857.
1024	Wheal Kitty (tin), Uny Lelant [S.E.]	£1 7 2	4½	17½ 15 17½	0 6 0	0 3 0—Mar. 24, 1857.
430	Wheal Lovel (tin), Wendron		33	16 16 17	6 0 0	1 0 0—Sept. 17, 1857.
448	Wheal Margaret (tin), Uny Lelant+		19¾	18	31 0 0	1 0 0—Sept. 5, 1856.
1024	Wheal Mary Ann (lead), Menheniot+ [S.E.]		8	47½ 45 48	84 0 0	2 0 0—Nov. 25, 1857.
80	Wheal Owles, St. Just, Cornwall		70	50 48 50	30 2 6	2 5 0—Sept. 15, 1857.
240	Wheal Reeth (tin), Uny Lelant		31½	300 300	220 13 0	5 0 0—Aug. 2, 1857.
198	Wheal Seton (tin, copper), Camborne*		107	35 20	40 10 0	3 0 0—Aug. 23, 1852.
1040	Wheal Trelawny (sil.-ld.), Liskeard [S.E.]		4¼	150 125 135	286 10 0	2 0 0—Oct. 12, 1857.
1024	Wheal Tremayne (tin, copper), Gwinear		11½	23 23½ 24	20 10 0	1 0 0—Oct. 26, 1857.
4096	Wheal Wrey (lead), St. Ive+	1l. 9s.	5½	5 5¼ 5½	10 2 6	0 7 6—Jan. 11, 1854.
5000	Wicklow (copper), Wicklow		5	31½ 32¾	2 10 0	0 4 0—June 16, 1857.
					27 5 6	1 0 0—July 9, 1857.

[* Dividends paid every two months. + Dividends paid every three months.]

FOREIGN MINES.

—	Alten and Quænangen Un. (cop.), Norway	£16¼	6	6 6½	4 5 0	0 15 0—Nov. 21, 1853.
2464	Burra Burra (copper), South Australia	5	114	130	185 0 0	5 0 0—June 5, 1857.
12000	Cobre Copper Company (cop.), Cuba [S.E.]	40	40	37 39	85 12 0	1 0 0—July 21, 1857.
10000	Copiapo Mining Company, Chili [S.E.]	16	12	10 13	5 8 0	0 10 0—May 9, 1856.
20000	General Mining Assoc., Nova Scotia [S.E.]	20	16¾	13 15	10 5 0	0 15 0—July 7, 1857.
15000	Linares (lead), Pozo Ancho, Spain [S.E.]	3	8¼	8½	4 17 2	0 6 8—Oct. 17, 1857.
10000	Lusitanian (of Portugal) [S.E.]		1¾	⅛ 1	0 6 3	0 2 0—May 25, 1857.
103815	Mariquita and New Granada [S.E.]	1	¾	⅜ ⅝	0 4 0	0 1 0—Aug. 20, 1857.
25000	Peninsular Mining Company (Limited)		¼	¼	0 2 6	0 2 6—Sept. 29, 1855.
10000	Pontgibaud (silver-lead), France [S.E.]	20	6	5 6	1 0 0	1 0 0—Nov. 26, 1856.
7000	Royal Santiago (copper), Cuba [S.E.]	16¾	2¾	1¾ 2	33 0 0	1 5 0—July 12, 1848.
11000	St. John del Rey	15	11	10 10¾	34 7 6	1 0 0—Nov. 26, 1856.
43174	United Mexican (silver), Mexico [S.E.] Av.	28¼	3½	3¾ 4	1 16 6	0 4 0—Feb. 14, 1853.
88676	North British Australasian [S.E.]	1	⅝	⅝ ⅝	0 1 8	0 1 0—Apr. 17, 1855.

NON-DIVIDEND FOREIGN MINES.

Shares.		Paid.	Last Price.	Present.
20000	Australian [S.E.]	7	⅛	⅛ ⅛
60000	Chancellorsville Freehold	1	⅛	⅛
50000	Clarendon Consols [S.E.]	⅛	4s.	4s 4s 6d
53040	Cologne Mining Company	£1 4	⅜	
350000	Copper Miners of Eng. [S.E.] Stock		28	26 28
12000	Ditto, Pref., 7½ per cent. [S.E.]	25	27	27
25000	Fortuna	2	1⅜	1⅜ 1⅝
2309	Kinzigthal Min. Ass., Germany	4	1⅛	
25000	Liberty, Virginia	1	—	
40000	London and Virginia	17s.	—	
80000	Mount Carbon (coal), Virginia	1	—	⅛
60000	New Granada [S.E.]	1	⅜	¼ ⅜
10000	New Grand Duchy of Baden	⅛	⅛	⅛
200000	Nouveau Monde [S.E.]	1	⅛	⅛
100000	Port Phillip	1	⅛	⅛
6000	Rossie and Canada Lead	6	—	
47795	Strathalbyn (Limited)	1	—	
7820	Ditto, Preference, 10 per cent.	1	—	
35425	Wheal Jamaica (copper)	14s.	14s.	16s.
75000	Wildberg (sil.-lead, copper)	2	1	1

PROGRESSIVE MINES.

Shares.		Paid.	Last Price.	Present.
6000	Abbey Consols (lead), Cardigan	14s. 6d.	1¼	1¼
16000	Angarrack	1	—	1¼ 1⅜
256	Antron Consols	£6 12 3	8	
10000	Arundell (cop.), near Ashburton	2	—	
899	Balnoon Con. (tin), Uny Lelant	£5 3 6	1	1¼ 1½
4000	Ballyvirgin, Co. Clare	£2 3	3¼	
10000	Bampfylde (copper), Devon		⅜	⅜ 1
1000	Barf (lead), Keswick	1¼	2½	2½ 2¾
4000	Bedford Consols (copper)	12s.	⅜	⅜ ⅝
2200	Benderg (Limited)	1	1	
250	Berriow Consols	£12 16	10	8
5000	Boiling Well (cop.), Gwithian	5	2	1½ 1¾
6000	Bolenowe (copper)	£1 17 6	⅜	
1258	Boscaswell	—	—	5 5½
1120	Bridford Consols	£8 8	7¼	7¼
4000	Brook Wood, Buckfastleigh		⅜	1
2060	Bryn-y-Fedwen (lead)	3½	1	
6000	Buckland Consols (copper)		⅛	⅛
6380	Buller and Basset United	2¼	4	4 4½
1200	Buller and Bertha (copper)	£2 2	1½	1 1¾
5000	Cae-Cynon, Cardiganshire	10s. 6d.	⅜	
600	Calcot Hall (lead), Limited	10	—	
4096	Calstock Consols (copper)	5	5½	5¾ 6
2000	Calstock United (tin and cop.)	6¾	⅛	1 1¾
1000	Camborne Consols	13½	7	5 6
920	Camborne Vean & Wh. Frances	£12 8 9	7	6
1024	Caradon Consols, St. Cleer	11	6¾	7 7¼
10000	Cargoll (silver-lead), Newlyn	£12 7 3	15	10 12
2580	Carmarthen United (lead)		2¾	2½ 2¾
4320	Carnewas (lead, cop.), Mawgan	13s.	1	⅞
7900	Carrack Dewa United, St. Ives	2¾	—	
1055	Carvannall (copper), Gwennap	11	5	2 2½
6400	Carvath United, St. Austell	2¾	1	
6400	Castell (lead and blende), Card.	11s. 6d.	⅜	⅛ ⅜
12000	Catherine and Jane Consols	⅛	⅛	⅛
6000	Cefn Gwyn (sil.-ld.), Cardigan	1	⅜	
6000	Chollacot Consols (copper)	3s. 6d.	⅜	
1024	Clijah & Wentworth (tin, cp.)	£21 15 6	4⅛	4 4½
8000	Clowance Wood, Crowan		⅛	⅛ ⅛
2450	Cook's Kitchen, Illogan	£16 10 9	5	4½ 5
256	Copper Hill (copper), Redruth	38	200	180 200
1000	Cwm Erfin (lead) Cardiganshire		7½	5
6000	Cwm Sebon (Limited)	£2 6 6	1⅝	1½ 1⅝
1000	Daren (sil.-lead), Cardiganshire	6	5	4½ 5
4096	Devon & Cornwall United (cop.)	£4 6 3	12	15
3907	Devon and Courtenay (copper)		⅛	⅛
4000	Devon Burra Burra (copper)	£5 3	—	
10000	Devon Great Elizabeth (copper)	£1 2	—	2½ 2¾
4568	Devon Wheal Buller	£1 18 6	⅜	⅛ ⅜
4315	Duke of Cornwall, Lostwithiel	£8 4 4	3¾	3¾
3000	Dyfngwm (lead), Wales	£12 6 6	13¼	13 13¼
256	Eaglebrook, Llanphangel, Card.	40	20	13 15
4096	East Alfred Consols	£1 6 6	2¼	2¼ 2¾
85	East Balleswidden, Sancreed		19¼	17 20
512	East Basset (copper), Redruth	27½	92½	90 95

Shares.		Paid.	Last Price.	Present.
1024	East Buller (copper), Redruth	13	2½	2¾ 3
6144	East Caradon (copper)	2¾	1¼	
6000	East Cornwall Cons. (tin & cp.)	3½	3	2½ 3
5200	East Fowey Consols		⅜	⅜
5500	East Frongoch	16s. 6d.	—	
4096	East Gonamena (copper)	1s. 3d.	¼	¼
4000	E. Gunnis Lake & S. Bedf. (cp.)	£5 19 6	2	2¼ 2⅜
5000	East Hender (copper), Crowan		⅜	⅜
6000	East Kitt Hill (tin)		¼	
4096	East Providence (tin), Uny Lel.		2¾	1¾ 2⅛
5000	E. Rosewarne (cp., tin), Gwinear	£1 5 6	1	
1000	East Rosewarne (tin), Crowan		⅜	1 1¼
7750	East Sortridge	3s.	¼	¼
9000	East Tamar (sil.-ld.), Beerferris	£2 16 6	⅜	⅜ ⅝
256	East Tolgus (copper), Redruth	47	55	40 45
1000	East Trefusis (copper)	£3 17 10	5	5¼ 6
119	East Wheal Agar	67	—	10
6000	East Wheal Clifford (cop.), Kea	2	1¼	1¼
10000	East Wheal Robert (copper)		⅜	⅜ ⅝
4000	East Wheal Russell, Tavistock	£4 11	2¾	3 3¼
5000	Fee Donald (lead)	8s. 6d.	⅛	⅛
512	Forest (copper), Illogan	6	4	4
5000	Fox Tor Alvenny (t. &c.), Limit.	5	3	
5000	Frank Mills, Devon	£3 6 6	4	3¾ 4
5000	Fee Donald (lead)	6	4	4
5000	Gallt-y-Ffrith-Rhedyn (Limited)	3	3	
5000	Garreg (lead), Flint	£2 13 6	⅜	⅜ ½
4000	Gawton (copper), Tavistock	£3 9 6	1¼	¾ 1
6000	Gellirheiron (sil.-ld.), Cardigan	1	⅜	⅜
1024	Gilmar (tin), St. Erth	£8 16 6	⅜	⅜ ½
4096	Great Caradon (copper)	¼	⅜	⅜ ½
30000	Great Crinnis (cop.), St. Austell	1	⅜	⅜
4000	Great Dowgas	5½	3	3¾
15000	Great Hewas United (tin)	£1 17	1¼	⅜
13864	Great Onslow Con., Camelford	1	⅜	
1024	Gt. Sheba Con., Stoke Climsland	24½	5	5 5½
12000	Great Sortridge, Whitchurch	6s. 6d.	—	
14000	Gt. Tregune Consols, Altarnun	1	1	
5120	Great Wheal Alfred [S.E.]	£11 7 5	5	4¾
5120	Great Wheal Baddern (tin)	£3 10 6	⅜	⅜ ½
6000	Gt. Wh. Busy (cop. & tin), Kenwyn	6¾	6¼	6¼
1024	Gt. Wheal Fortune, Breage	£25 13 10	7	3¼ 4½
3000	Gwinear Consols (copper)	5	4	⅜
9600	Gwydyr Park Consols, Llanrwst	8s. 3d.	⅜	⅜
512	Halamanning and Croft Gothal	104¼	2	
8192	Hawkmoor (tin, cop.), Calstock	1¾	⅜	⅜ 1
100	Herward United (lead), Flint	60	55	55
4000	Holmbush (ld., cop.), Callington	4¼	2	1¾ 2
6000	Huckworthy Bridge (copper)	5s. 6d.	⅛	⅛ ⅜
5000	Kelly Bray (ld., cp.), Callington	£3 19 6	1¾	1½ 1⅝
2048	Kenegesy, Breage	19s. 7d.	—	2
6000	Keswick (lead), Portinscale	£4 9 6	1	
6500	Kinnerton, Salop	£1 3	—	1¼
6000	Lady Bertha (copper) [S.E.]	17s.	1	¾ 1
1024	Leeds & St. Aubyn (tin, cop.)	£12 16 3	3½	4¼ 4½
1024	Lelant Consols (tin)	27	1½	1 1¼
4474	Lambest Consols (silver-lead)	1s.	⅜	6s. 6d.
12000	Llandudno (copper)	1½	⅜	⅜ 1
4096	Mainstone (lead), Salop	1½	⅜	
12000	Maria Consols (silver-lead)	1	1	
1024	Mill Pool (tin, cop.), St. Hilary	£13 16 6	2½	2¾ 2¼
7500	Mixon Great Con. (cop.), Leek	£1 19 2	1	
16000	Moid (lead), Limited		⅜	⅜
10000	Molland (cop.), South Moulton	£1 4	⅜	⅜
4157	Mount's Bay Consols, Marazion	4¼	⅜	⅜
128	Mulberry Hill (tin), Lanivet	2	—	3½
64	Nant-ar-Nelle, Llandovery	31	20	
1500	Nant-y-Car (cop.), nr. Rhyader	£4 7	6	6¾ 6¾
320	Nent Force, Alston	1	1¼	
6400	New Crow Hill (lead)	1⅜	1½	1⅜ 2
2400	New Machno Slate and Slab Co.	10	9	
8000	New Treleigh Consols, Redruth	⅛	⅛	⅛
4000	New Wh. Vor and E. Wh. Metal	1⅜	3	2¾ 3
1024	North Buller (cop.), Redruth	£12 13 6	5½	5½ 6
2000	North Downs (cop.), Redruth	5¼	1½	1¾ 1¾
256	North Fowey (copper)	4¾	¼	
2500	North Frances (cop.) [S.E.]	7	10	9 10
1366	North Grambler, Redruth	1¼	1	1¼
120	North Laxey (lead)	50	55	55
2000	North Levant (tin, cop.), St. Just	6½	3¾	3½ 3¾
512	North Penhaldarva	1¼	5	5
1024	North Rosewarne, Gwinear	⅛	⅛	
3896	North Tavy (copper)	⅛	⅛	1
1024	North Wheal Busy	£3 0 5	2½	2 3
1128	North Wheal Crofty [S.E.]	£7 18 4	5¼	5
1024	No. Wh. Gilbert (cop.), St. Erth	£1 19	2	
6144	N. Wh. Robert, Sampford Spiney	2½	3¼	3¼ 3¾
4240	North Wheal Trelawny	2¾	⅜	⅜ ¾
2400	N. Wh. Unity (cop., tin), Gwin.	1¾	1	
4096	N. Wheal Wrey Consols, St. Ive	11s. 6d.	1¼	1¼ 1⅜
6000	North Wrey and Julia	8s.	⅛	⅛ ⅜
4096	Okel Tor (lead), Calstock	£3 18	3	
1000	Old Tincroft (tin), Lelant	¼	1¼	1⅜
600	Old Tolgus United (cop.), Redr.	50	54	53 55
5538	Old Trewether Consols	£1 5 6	—	
256	Old Wheal Basset, Illogan	10¾	2	
10000	Pedn-an-drea United (tin)	£2 15 6	1	1 1⅛
36820	Pembroke & East Crinnis (cop.)	£1 7 6	⅜	⅜
5000	Pencorse Consols, St. Enoder	2¾	1¾	1¾
4945	Pendeen Consols, St. Just	£1 18 6	2½	2¾ 2¾
512	Penhaldarva	4¼	25	50 55
4096	Penharget and Wheal Wrey	1	—	⅜ 1
4228	Penquean, St. Breock		1	⅜
1200	Penstruthal (copper)	£13 9 3	12	12
100	Pentre Lygan	20	22	
1160	Perran St. George (copper, tin)	21¾	10	8 10
512	Polbreen	4¼	4¾	4½
2048	Ponterwyd (lead), Cardigan	£2 16 6	1	
2400	Porkellis United (tin) [S.E.]	9	5	4 5
560	Pwll-y-Wheel (lead), Mold	£7 12	12	12
4096	Queen of Dart, Ashburton	⅛	1¾	⅜
12000	Redmoor (copper and tin)	—	⅛	⅛ ⅜

Shares.		Paid.	Last Prices.	Present.
10000	Rheidol United Mine	£1 8 6	1¼	
6000	Rosewall Hill & Ransom United	3	⅜	
1024	Rosewarne and Herland United	3¾	⅜	3½
4096	Rosewarne Consols	£1 16	4¾	4 4½
5000	Round Hill (silver-lead), Salop	1¾	⅛	5
1024	Silver Valley, Truro	£3 4 10